

Susan Hanley

considered
12/28/02
mcs

Access DB# 79294

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: My-Chan Tran Examiner #: 78933 Date: 11/4/02
Art Unit: 1639 Phone Number 305-6999 Serial Number: 09/871,691
Mail Box and Bldg/Room Location: CM1, 8A16 Results Format Preferred (circle): PAPER DISK E-MAIL
LO 3801

If more than one search is submitted, please prioritize searches in order of need. *mef*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Method of attaching a biopolymer to a solid support
Inventors (please provide full names): Michael C. Pirrung; Amy L. Odenbaugh;
Richard V. Connors; Janice D. Worden

Earliest Priority Filing Date: 6/4/01

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

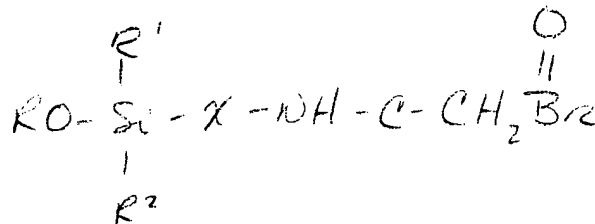
Mrs. Hanley,

Please perform the following:

1) Inventions search

2) Structure:

of Claim 7+9



3) Search claims 7-10

Point of Contact:
Susan Hanley
Technical Info. Specialist
CM1 6B05 Tel: 305-4053

Thanks. *ll*

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L36 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1991:64602 HCAPLUS

DOCUMENT NUMBER: 114:64602

TITLE: Preparation and uses of organosiloxane-containing polysaccharides

INVENTOR(S): Billmers, Robert L.

PATENT ASSIGNEE(S): National Starch and Chemical Investment Holding Corp., USA

SOURCE: Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 385396	A1	19900905	EP 1990-103801	19900227
EP 385396	B1	19940907		
R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
US 4973680	A	19901127	US 1989-318579	19890303
CA 2009687	AA	19900903	CA 1990-2009687	19900209
AU 9049900	A1	19900913	AU 1990-49900	19900216
AU 609349	B2	19910426		
EP 540506	A2	19930505	EP 1993-101082	19900227
EP 540506	A3	19930707		
EP 540506	B1	19970910		
R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
EP 541511	A2	19930512	EP 1993-101081	19900227
EP 541511	A3	19930707		
EP 541511	B1	19970806		
R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
ES 2059852	T3	19941116	ES 1990-103801	19900227
AT 156542	E	19970815	AT 1993-101081	19900227
AT 157998	E	19970915	AT 1993-101082	19900227
JP 02283701	A2	19901121	JP 1990-45999	19900228
JP 2525497	B2	19960821		
US 5004791	A	19910402	US 1990-580438	19900910
FI 9503573	A	19950726	FI 1995-3573	19950726
JP 08209589	A2	19960813	JP 1995-263326	19951011
JP 2558089	B2	19961127		

PRIORITY APPLN. INFO.:

US 1989-318579 19890303

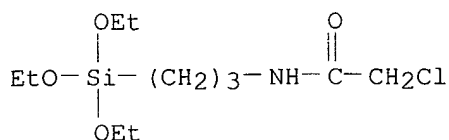
FI 1990-1091 19900302

AB Polysaccharide derivs. and graft copolymers contg. organosiloxane substituents, useful in **glass** fiber forming size compns., papermaking, and other applications, are prepd. by reacting a polysaccharide with a difunctional reagent contg. a siloxane group and a polysaccharide-reactive group to form an ether or ester bond with the polysaccharide. Thus, 100 g of acid-converted waxy maize starch (I) was reacted with 1.0% 3-glycidoxypropyltrimethoxysilane (II) at pH 11.0 and 40.degree. for 60 h to give I-II deriv. having a viscosity 10,000 cPs, compared with 3000 cPs for the control contg. only I. Paper manufd. in the presence of 0.5% cationic waxy maize I-II deriv. showed dry strength 1765 g, compared with 1586 g for paper contg. 0.5% cationic waxy I.

IT **86240-12-2DP**, reaction products with cationic starch and polysaccharides

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and uses of)

RN 86240-12-2 HCAPLUS
 CN Acetamide, 2-chloro-N-[3-(triethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



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L36 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2002 ACS
 IC ICM C08B003-14
 ICS C08B011-04; C08B011-14; C08B031-02; C08B031-08; C08B037-14;
 C03C025-02; D21H017-24
 CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)
 Section cross-reference(s): 33
 ST polysaccharide silane deriv manuf; starch silane deriv manuf;
 glycidoxypropyltrimethoxysilane starch deriv; size **glass** fiber
 polysaccharide derive; strength paper polysaccharide silane deriv; graft
 siloxane polysaccharide
 IT Paper
 (manuf. of, dry strength enhancers for, cationic starch-siloxane
 reaction products as)
 IT Esterification
 (of silanes with polysaccharides)
 IT Sizes
 (polysaccharide-siloxane reaction products, for **glass** fibers)
 IT **Glass** fibers, uses and miscellaneous
 RL: USES (Uses)
 (sizes for, siloxane-contg. polysaccharide derivs. and graft polymers
 as)
 IT Polymerization
 (graft, of allyl glycidyl ether and starch)
 IT 2530-83-8DP, 3-Glycidoxypropyltrimethoxysilane, reaction products with
 cationic starch and polysaccharides 9000-30-0DP, Guar gum, reaction
 products with silanes 9004-34-6DP, .alpha.-Cellulose, reaction products
 with silanes 9005-25-8DP, Starch, cationic derivs., reaction products
 with silanes **86240-12-2DP**, reaction products with cationic
 starch and polysaccharides 109213-85-6DP, reaction products with
 cationic starch and polysaccharides 131561-08-5P 131783-21-6DP,
 reaction products with cationic starch and polysaccharides
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and uses of)

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L37 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:62388 HCAPLUS

DOCUMENT NUMBER: 134:116363

TITLE: Silica gels incorporating polyazacycloalkane units containing more than six nitrogen atoms, their preparation and use

INVENTOR(S): Denat, Franck; Dubois, Geraud; Tripier, Raphael; Guillard, Roger; Roux-Fouillet, Bruno

PATENT ASSIGNEE(S): l'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude, Fr.

SOURCE: Eur. Pat. Appl., 19 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1070722	A1	20010124	EP 2000-401789	20000622
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2796645	A1	20010126	FR 1999-9587	19990723
FR 2796645	B1	20010914		
JP 2001097980	A2	20010410	JP 2000-216061	20000717
PRIORITY APPLN. INFO.:			FR 1999-9587	A 19990723

OTHER SOURCE(S): MARPAT 134:116363

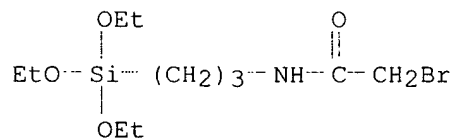
AB Trialkoxysilyl groups are introduced into the macrocyclic N compds. and the products are homo- or copolymd. [with Si(OEt)₄] to give siloxanes capable of extg. O from the air or of purifying O. Thus, 6,6,13,13,20,20,27,27-octamethyl-1,4,8,11,15,18,22,25-octaazacyclooctacosane in THF was treated with excess (EtO)₃Si(CH₂)₃NCO to introduce 8 Si(OEt)₃ groups. Hydrolysis of the product in THF in the presence of Bu₄NF for 4 days at 19.degree. gave a gel as a white powder with surface area <10 m²/g. Treatment of the gel with CuCl₂ gave a complex which absorbed 1.18 cm³ O₂/g.

IT 110884-59-8

RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of silica gels incorporating polyazacycloalkane units)

RN 110884-59-8 HCAPLUS

CN Acetamide, 2-bromo-N-[3-(triethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L37 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:487303 HCAPLUS

DOCUMENT NUMBER: 131:146475

TITLE: Silica gel incorporating polyazacycloalkane structural units

INVENTOR(S): Corriu, Robert; Reye, Catherine; Mehdi, Ahmad; Dubois, Gerard; Chuit, Claude; Denat, Franck; Roux-Fouillet, Bruno; Guillard, Roger; Lagrange, Gilles; Brandes, Stephane

PATENT ASSIGNEE(S): L'air Liquide Societe Anonyme Pour L'etude Et L'exploitation Des ProcedesGeo, Fr.

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

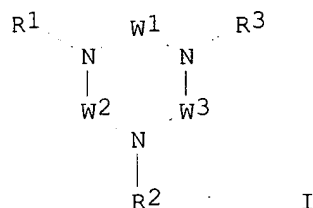
DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9937656	A1	19990729	WO 1999-FR142	19990125
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
FR 2774093	A1	19990730	FR 1998-785	19980126
FR 2774093	B1	20000317		
CA 2318928	AA	19990729	CA 1999-2318928	19990125
EP 1051422	A1	20001115	EP 1999-901626	19990125
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
JP 2002501076	T2	20020115	JP 2000-528577	19990125
PRIORITY APPLN. INFO.:			FR 1998-785	A 19980126
			WO 1999-FR142	W 19990125
OTHER SOURCE(S):			MARPAT 131:146475	
GI				



AB The invention concerns a compd. of formula I in which: W1, W2 and W3 represent each a divalent radical selected among those represented by the general formula (A): $-(CT1T2)n-[N(R4)]p-(CT3T4)m]1-$, as defined in the description; R4 represents a hydrogen atom, an alkyl radical, a [(hetero)aryl]alkyl or a radical of the formula (B): $R5-Si(X1)(X2)(X3)$ as defined in the description; R1 and R2, and R3 represent each a hydrogen atom, an alkyl radical, or a [(hetero)aryl]alkyl radical or a radical represented by the formula (B) provided that the polyazacycloalkane ring of the compd. of formula (I) comprises not >30 cyclic carbon atoms and not >6 cyclic nitrogen atoms and at least one of these cyclic nitrogen atoms

TRAN 09/871,691

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ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2002:466634 HCAPLUS

DOCUMENT NUMBER: 137:43915

TITLE: Method of attaching a **biopolymer** to a **solid support** using **bromoacetamidossilanes** to functionalize the supportINVENTOR(S): **Pirrung, Michael C.; Odenbaugh, Amy L.; Connors, Richard V.; Worden, Janice D.**

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 13 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002076832	A1	20020620	US 2001-871691	20010604
PRIORITY APPLN. INFO.: MARPAT 137:43915			US 2000-208493P	P 20000602

AB The present invention relates, in general, to a method of attaching a **biopolymer** to a **solid support** and, in particular, to a method of attaching a nucleic acid to a **glass** surface, and to reagents suitable for use in such a method. The invention further relates to the product produced by the present method and to kits comprising same. Clean microscope slides were **silanized** with N-(3-diethoxymethylsilylpropyl)**bromoacetamide** (prepn. given). Four oligonucleotides differing in only the nucleotide at their (free) 3'-ends were arrayed. When the array was treated with polymerase and fluoresceinated terminator, specific labeling of only the primer with perfect complementarity to the template was obsd.

IT 57-12-5, Cyanide, uses 61-19-8, Adenosine monophosphate, uses 62-56-6, Thiourea, uses 71-50-1, Acetate, uses 85-41-6, Phthalimide 110-86-1, Pyridine, uses 110-91-8, Morpholine, uses 929-06-6, 2-(2-Aminoethoxy)ethanol 3812-32-6D, Carbonate, reacted with borate 7664-41-7, Ammonia, uses 11129-12-7D, Borate, reacted with carbonate 14343-69-2, Azide 14383-50-7, Thiosulfate (S2O32-) 15181-41-6, Thiophosphate 19341-57-2

RL: NUU (Other use, unclassified); USES (Uses)
(as passivator; method of attaching **biopolymers** to **solid supports** using **bromoacetamidossilanes** to functionalize supports)

RN 57-12-5 HCAPLUS

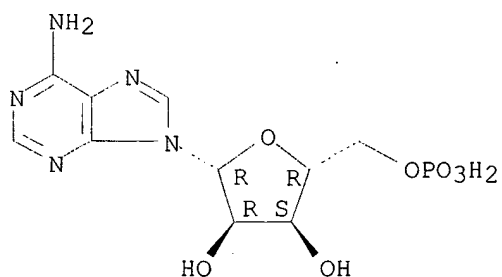
CN Cyanide (8CI, 9CI) (CA INDEX NAME)

-C≡N

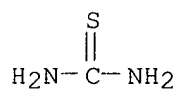
RN 61-19-8 HCAPLUS

CN 5'-Adenylic acid (8CI, 9CI) (CA INDEX NAME)

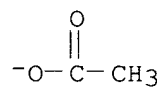
Absolute stereochemistry.



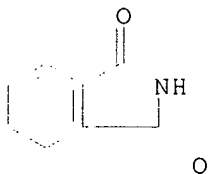
RN 62-56-6 HCAPLUS
CN Thiourea (9CI) (CA INDEX NAME)



RN 71-50-1 HCAPLUS
CN Acetic acid, ion(1-) (8CI, 9CI) (CA INDEX NAME)



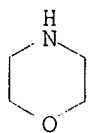
RN 85-41-6 HCAPLUS
CN 1H-Isoindole-1,3(2H)-dione (9CI) (CA INDEX NAME)



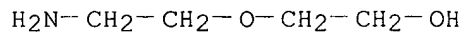
RN 110-86-1 HCAPLUS
CN Pyridine (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



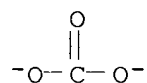
RN 110-91-8 HCAPLUS
CN Morpholine (8CI, 9CI) (CA INDEX NAME)



RN 929-06-6 HCAPLUS
CN Ethanol, 2-(2-aminoethoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 3812-32-6 HCAPLUS
CN Carbonate (8CI, 9CI) (CA INDEX NAME)

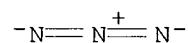


RN 7664-41-7 HCAPLUS
CN Ammonia (8CI, 9CI) (CA INDEX NAME)

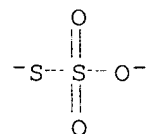


RN 11129-12-7 HCAPLUS
CN Borate (9CI) (CA INDEX NAME)

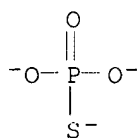
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 14343-69-2 HCAPLUS
CN Azide (8CI, 9CI) (CA INDEX NAME)



RN 14383-50-7 HCAPLUS
CN Thiosulfate (S2O32-) (8CI, 9CI) (CA INDEX NAME)

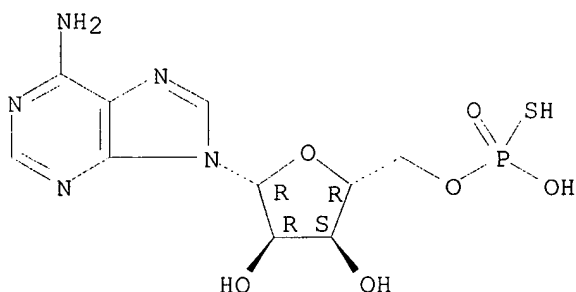


RN 15181-41-6 HCAPLUS
CN Phosphorothioate (8CI, 9CI) (CA INDEX NAME)

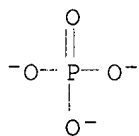


RN 19341-57-2 HCAPLUS
CN Adenosine, 5'-(dihydrogen phosphorothioate) (8CI, 9CI) (CA INDEX NAME)

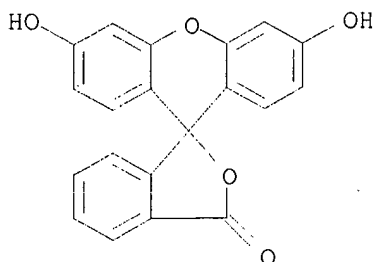
Absolute stereochemistry.



IT 14265-44-2, Phosphate, uses
RL: NUU (Other use, unclassified); USES (Uses)
(buffer, phosphorothioate immobilization in relation to; method of
attaching **biopolymers** to **solid supports**
using **bromoacetamidossilanes** to functionalize supports)
RN 14265-44-2 HCAPLUS
CN Phosphate (8CI, 9CI) (CA INDEX NAME)



IT 2321-07-5DP, Fluorescein, conjugates with immobilized
biopolymer
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); TEM
(Technical or engineered material use); ANST (Analytical study); PREP
(Preparation); USES (Uses)
(method of attaching **biopolymers** to **solid**
supports using **bromoacetamidossilanes** to functionalize
supports)
RN 2321-07-5 HCAPLUS
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI)
(CA INDEX NAME)



IT 9012-90-2

RL: CAT (Catalyst use); USES (Uses)

(method of attaching **biopolymers** to **solid supports** using **bromoacetamidossilanes** to functionalize supports)

RN 9012-90-2 HCAPLUS

CN Nucleotidyltransferase, deoxyribonucleate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 67-56-1, Methanol, reactions 598-21-0,

Bromoacetyl bromide 3179-76-8, (3-Aminopropyl)

methyldiethoxysilane 18306-79-1, 3-

Aminopropyldimethylethoxysilane 24027-80-3D, DdATP,

fluorescein labeled 113641-37-5, (3-Cyanopropyl)

diisopropylchlorosilane

RL: RCT (Reactant); RACT (Reactant or reagent)

(method of attaching **biopolymers** to **solid supports** using **bromoacetamidossilanes** to functionalize supports)

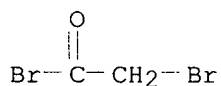
RN 67-56-1 HCAPLUS

CN Methanol (8CI, 9CI) (CA INDEX NAME)

H₃C--OH

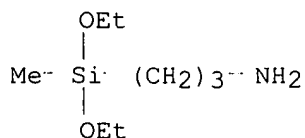
RN 598-21-0 HCAPLUS

CN Acetyl bromide, bromo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



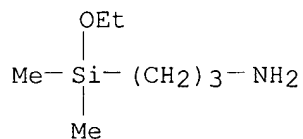
RN 3179-76-8 HCAPLUS

CN 1-Propanamine, 3-(diethoxymethylsilyl)- (9CI) (CA INDEX NAME)



RN 18306-79-1 HCAPLUS

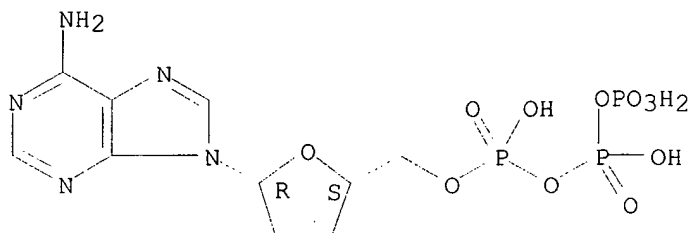
CN 1-Propanamine, 3-(ethoxydimethylsilyl)- (9CI) (CA INDEX NAME)



RN 24027-80-3 HCAPLUS

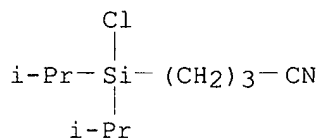
CN Adenosine 5'-(tetrahydrogen triphosphate), 2',3'-dideoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 113641-37-5 HCAPLUS

CN Butanenitrile, 4-[chlorobis(1-methylethyl)silyl]- (9CI) (CA INDEX NAME)



IT 256352-86-0P 256352-87-1P 256352-89-3P

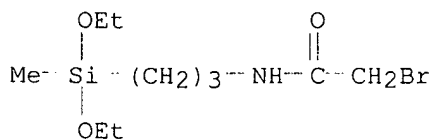
256352-90-6P 437610-24-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(method of attaching **biopolymers** to **solid****supports** using **bromoacetamidossilanes** to functionalize supports)

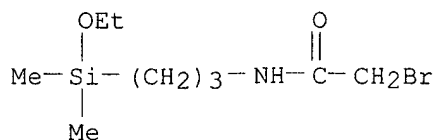
RN 256352-86-0 HCAPLUS

CN Acetamide, 2-bromo-N-[3-(diethoxymethylsilyl)propyl]- (9CI) (CA INDEX NAME)



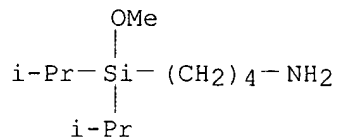
RN 256352-87-1 HCAPLUS

CN Acetamide, 2-bromo-N-[3-(ethoxydimethylsilyl)propyl]- (9CI) (CA INDEX NAME)



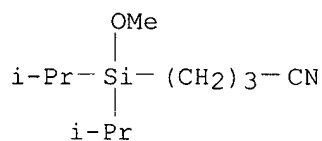
RN 256352-89-3 HCAPLUS

CN 1-Butanamine, 4-[methoxybis(1-methylethyl)silyl]- (9CI) (CA INDEX NAME)



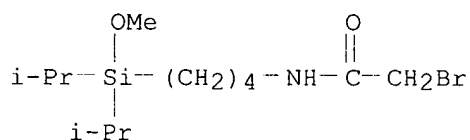
RN 256352-90-6 HCAPLUS

CN Butanenitrile, 4-[methoxybis(1-methylethyl)silyl]- (9CI) (CA INDEX NAME)



RN 437610-24-7 HCAPLUS

CN Acetamide, 2-bromo-N-[4-[methoxybis(1-methylethyl)silyl]butyl]- (9CI) (CA INDEX NAME)



IT 7732-18-5, Water, uses

RL: NUU (Other use, unclassified); USES (Uses)

(phosphorothioate immobilization in relation to; method of attaching
biopolymers to solid supports using
bromoacetamidossilanes to functionalize supports)

RN 7732-18-5 HCAPLUS

CN Water (8CI, 9CI) (CA INDEX NAME)

H₂O

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L25 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2002 ACS

IC ICM G01N033-543

NCL 436518000
 CC 9-16 (Biochemical Methods)
 Section cross-reference(s): 3, 29
 ST **biopolymer attachment solid support**
bromoacetamidossilane; nucleic acid immobilization glass
 IT **Silanes**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (bromoacetamido; method of attaching biopolymers to
solid supports using bromoacetamidossilanes
 to functionalize supports)
 IT Phosphorothioate oligonucleotides
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (immobilization of; method of attaching biopolymers to
solid supports using bromoacetamidossilanes
 to functionalize supports)
 IT Immobilization, molecular
 Test kits
 (method of attaching biopolymers to **solid**
supports using bromoacetamidossilanes to functionalize
 supports)
 IT **Biopolymers**
 Nucleic acids
 Reagents
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (method of attaching biopolymers to **solid**
supports using bromoacetamidossilanes to functionalize
 supports)
 IT **Glass, reactions**
 RL: RCT (Reactant); TEM (Technical or engineered material use); RACT
 (Reactant or reagent); USES (Uses)
 (method of attaching biopolymers to **solid**
supports using bromoacetamidossilanes to functionalize
 supports)
 IT Phosphates, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (phosphorothioates, immobilization of; method of attaching
biopolymers to solid supports using
bromoacetamidossilanes to functionalize supports)
 IT Genetic polymorphism
 (single nucleotide, discrimination of; method of attaching
biopolymers to solid supports using
bromoacetamidossilanes to functionalize supports)
 IT Microscopes
 (slides, silanization of; method of attaching
biopolymers to solid supports using
bromoacetamidossilanes to functionalize supports)
 IT 57-12-5, Cyanide, uses 61-19-8, Adenosine monophosphate,
 uses 62-56-6, Thiourea, uses 71-50-1, Acetate, uses
 85-41-6, Phthalimide 110-86-1, Pyridine, uses
 110-91-8, Morpholine, uses 929-06-6,
 2-(2-Aminoethoxy)ethanol 3812-32-6D, Carbonate, reacted with
 borate 7664-41-7, Ammonia, uses 11129-12-7D, Borate,
 reacted with carbonate 14343-69-2, Azide 14383-50-7,
 Thiosulfate (S2O32-) 15181-41-6, Thiophosphate
 19341-57-2
 RL: NUU (Other use, unclassified); USES (Uses)
 (as passivator; method of attaching biopolymers to
solid supports using bromoacetamidossilanes
 to functionalize supports)
 IT 14265-44-2, Phosphate, uses

- RL: NUU (Other use, unclassified); USES (Uses)
(buffer, phosphorothioate immobilization in relation to; method of attaching **biopolymers to solid supports** using **bromoacetamidossilanes** to functionalize supports)
- IT 2321-07-5DP, Fluorescein, conjugates with immobilized **biopolymer**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); TEM (Technical or engineered material use); ANST (Analytical study); PREP (Preparation); USES (Uses)
(method of attaching **biopolymers to solid supports** using **bromoacetamidossilanes** to functionalize supports)
- IT 9012-90-2
RL: CAT (Catalyst use); USES (Uses)
(method of attaching **biopolymers to solid supports** using **bromoacetamidossilanes** to functionalize supports)
- IT 437971-97-6 437971-98-7D, 5' amino-linked derivs.
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(method of attaching **biopolymers to solid supports** using **bromoacetamidossilanes** to functionalize supports)
- IT 67-56-1, Methanol, reactions 598-21-0, **Bromoacetyl bromide 3179-76-8**, (3-Aminopropyl) **methyl-diethoxysilane 18306-79-1**, 3-**Aminopropyl-dimethylethoxysilane 24027-80-3D**, DdATP, fluorescein labeled 113641-37-5, (3-Cyanopropyl) **diisopropylchlorosilane**
RL: RCT (Reactant); RACT (Reactant or reagent)
(method of attaching **biopolymers to solid supports** using **bromoacetamidossilanes** to functionalize supports)
- IT 256352-86-0P 256352-87-1P 256352-89-3P 256352-90-6P 437610-24-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(method of attaching **biopolymers to solid supports** using **bromoacetamidossilanes** to functionalize supports)
- IT 437674-57-2P 437674-58-3P 437674-59-4P 437674-60-7P 437674-61-8P 437674-62-9P 437674-63-0P 437674-64-1P 437970-13-3DP, reaction with fluorescein 437970-14-4P 437970-15-5P 437970-16-6P 437970-17-7P 437970-18-8P 437970-19-9P 437970-20-2P 437970-21-3P
RL: ARG (Analytical reagent use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(nucleotide sequence; method of attaching **biopolymers to solid supports** using **bromoacetamidossilanes** to functionalize supports)
- IT 437970-22-4 437970-23-5 437970-24-6D, 5' amino-linked derivs. 437970-25-7
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(nucleotide sequence; method of attaching **biopolymers to solid supports** using **bromoacetamidossilanes** to functionalize supports)
- IT 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); USES (Uses)
(phosphorothioate immobilization in relation to; method of attaching **biopolymers to solid supports** using **bromoacetamidossilanes** to functionalize supports)

TRAN 09/871,691

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L25 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2002:457885 HCAPLUS
 DOCUMENT NUMBER: 137:169292
 TITLE: 19F-Encoded Combinatorial Libraries: Discovery of
 Selective Metal Binding and Catalytic Peptoids
 AUTHOR(S): Pirrung, Michael C.; Park, Kaapjoo; Tumey,
 L. Nathan
 CORPORATE SOURCE: Department of Chemistry, Levine Science Research
 Center, Duke University, Durham, NC, 27708-0317, USA
 SOURCE: Journal of Combinatorial Chemistry (2002), 4(4),
 329-344
 CODEN: JCCHFF; ISSN: 1520-4766
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

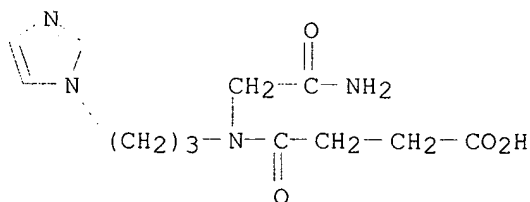
AB A 19F NMR method for encoding of combinatorial libraries has been
 developed. Aryl fluorides whose chem. shifts are modified by arom.
 substituents were prepd. and attached to resin support beads that were
 used in the split-pool synthesis of peptoids. The detection of the 19F
 NMR signal of tags derived from a single "big bead" was demonstrated. The
 library diversity arises from amines and the cyclic anhydrides used in
 their acylation. The resulting 90-compd. library was examd. for metal ion
 binding, whereupon novel ligands for iron and copper were discovered. The
 metal-binding consts. of some of these peptoids were in the low micromolar
 range. The library was also examd. for catalysis of self-acylation.

IT 447463-37-8P

RL: CPN (Combinatorial preparation); CMBI (Combinatorial study); PREP
 (Preparation)
 ("trial-run"; solid-phase synthesis of 19F-encoded combinatorial
 libraries)

RN 447463-37-8 HCAPLUS

CN Butanoic acid, 4-[(2-amino-2-oxoethyl)[3-(1H-imidazol-1-yl)propyl]amino]-4-
 oxo- (9CI) (CA INDEX NAME)



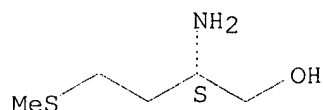
IT 2899-37-8, L-Methioninol 16369-05-4, DL-Valinol
 16832-24-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of amines used in the 19F-encoded, combinatorial solid-phase
 synthesis of a library of peptoids)

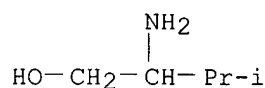
RN 2899-37-8 HCAPLUS

CN 1-Butanol, 2-amino-4-(methylthio)-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

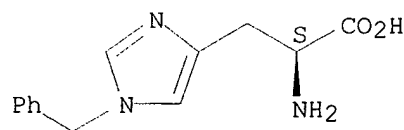


RN 16369-05-4 HCAPLUS
CN 1-Butanol, 2-amino-3-methyl- (9CI) (CA INDEX NAME)

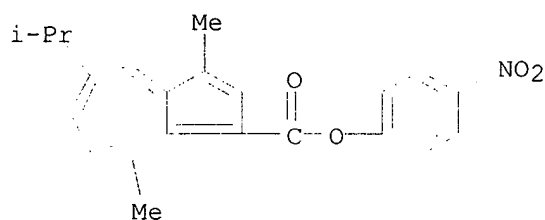


RN 16832-24-9 HCAPLUS
CN L-Histidine, 1-(phenylmethyl)- (9CI) (CA INDEX NAME)

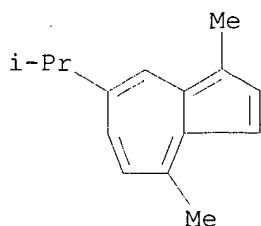
Absolute stereochemistry.



IT **447463-51-6P**
RL: CRG (Combinatorial reagent); RGT (Reagent); SPN (Synthetic preparation); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of an azulene-based dye to screen the peptoid library for catalysis of self-acylation)
RN 447463-51-6 HCAPLUS
CN 1-Azulenecarboxylic acid, 3,8-dimethyl-5-(1-methylethyl)-, 4-nitrophenyl ester (9CI) (CA INDEX NAME)



IT **489-84-9**, Guaiiazulene
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of an azulene-based dye to screen the peptoid library for catalysis of self-acylation)
RN 489-84-9 HCAPLUS
CN Azulene, 1,4-dimethyl-7-(1-methylethyl)- (9CI) (CA INDEX NAME)



IT 447464-11-1P 447464-18-8P 447464-23-5P

447464-27-9P 447464-32-6P 447464-36-0P

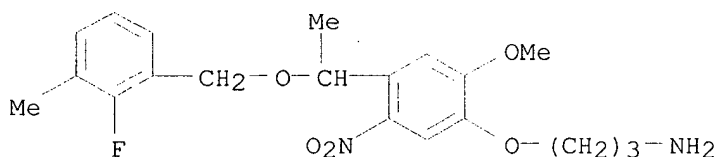
447464-40-6P 447464-45-1P 447464-49-5P

RL: CRG (Combinatorial reagent); RGT (Reagent); SPN (Synthetic preparation); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of aryl fluoride tags for attachment to resin support used in the synthesis of 19F-encoded combinatorial libraries)

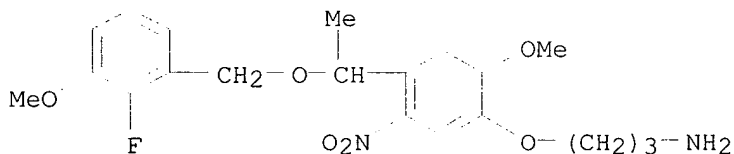
RN 447464-11-1 HCAPLUS

CN 1-Propanamine, 3-[4-[1-[(2-fluoro-3-methylphenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]- (9CI) (CA INDEX NAME)



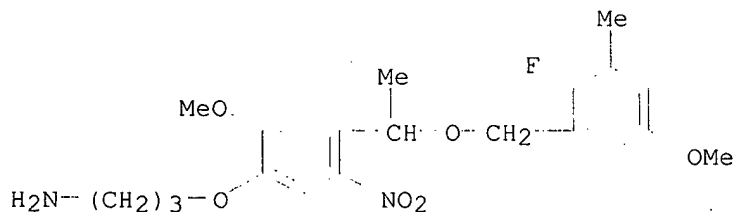
RN 447464-18-8 HCAPLUS

CN 1-Propanamine, 3-[4-[1-[(2-fluoro-3-methoxyphenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]- (9CI) (CA INDEX NAME)

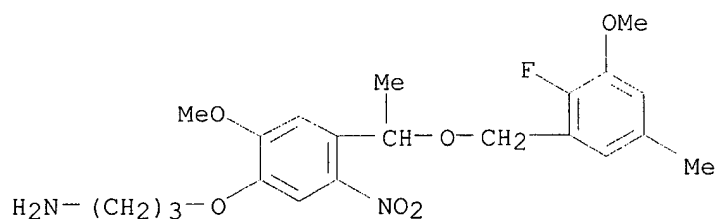


RN 447464-23-5 HCAPLUS

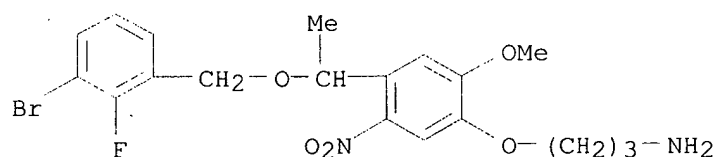
CN 1-Propanamine, 3-[4-[1-[(2-fluoro-5-methoxy-3-methylphenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]- (9CI) (CA INDEX NAME)



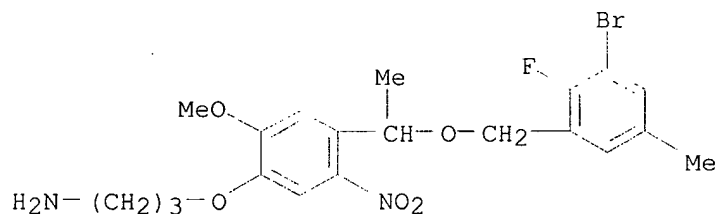
RN 447464-27-9 HCAPLUS
 CN 1-Propanamine, 3-[4-[1-[(2-fluoro-3-methoxy-5-methylphenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]- (9CI) (CA INDEX NAME)



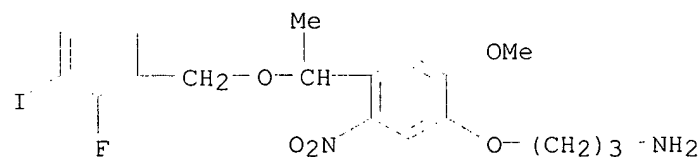
RN 447464-32-6 HCAPLUS
 CN 1-Propanamine, 3-[4-[1-[(3-bromo-2-fluorophenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]- (9CI) (CA INDEX NAME)



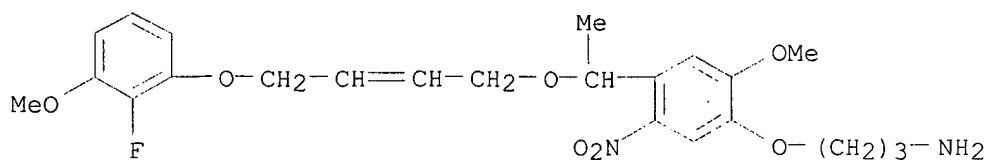
RN 447464-36-0 HCAPLUS
 CN 1-Propanamine, 3-[4-[1-[(3-bromo-2-fluoro-5-methylphenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]- (9CI) (CA INDEX NAME)



RN 447464-40-6 HCAPLUS
 CN 1-Propanamine, 3-[4-[1-[(2-fluoro-3-iodophenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]- (9CI) (CA INDEX NAME)

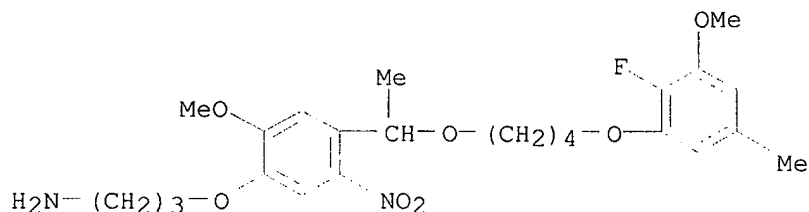


RN 447464-45-1 HCAPLUS
 CN 1-Propanamine, 3-[4-[1-[[4-(2-fluoro-3-methoxyphenoxy)-2-butenyl]oxy]ethyl]-2-methoxy-5-nitrophenoxy]- (9CI) (CA INDEX NAME)



RN 447464-49-5 HCAPLUS

CN 1-Propanamine, 3-[4-[1-[4-(2-fluoro-3-methoxy-5-methylphenoxy)butoxy]ethyl]-2-methoxy-5-nitrophenoxy]- (9CI) (CA INDEX NAME)

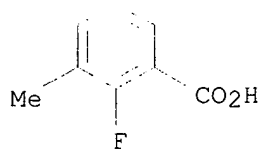


IT 315-31-1, 2-Fluoro-3-methylbenzoic acid 321-28-8,
 2-Fluoroanisole 6974-12-5, 1,4-Dibromo-2-butene
 63762-78-7, 1-Fluoro-2-methoxy-4-methylbenzene 72518-16-2
 , 3-Bromo-2-fluoro-5-methylbenzoic acid 161957-56-8,
 3-Bromo-2-fluorobenzoic acid 175281-76-2 447464-03-1,
 2-Fluoro-3-iodobenzoic acid

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of aryl fluoride tags for attachment to resin support used in
 the synthesis of 19F-encoded combinatorial libraries)

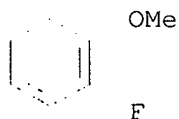
RN 315-31-1 HCAPLUS

CN Benzoic acid, 2-fluoro-3-methyl- (9CI) (CA INDEX NAME)



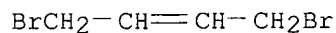
RN 321-28-8 HCAPLUS

CN Benzene, 1-fluoro-2-methoxy- (9CI) (CA INDEX NAME)



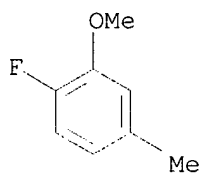
RN 6974-12-5 HCAPLUS

CN 2-Butene, 1,4-dibromo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



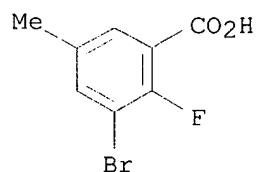
RN 63762-78-7 HCAPLUS

CN Benzene, 1-fluoro-2-methoxy-4-methyl- (9CI) (CA INDEX NAME)



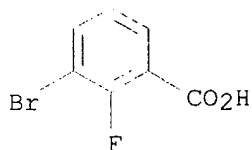
RN 72518-16-2 HCAPLUS

CN Benzoic acid, 3-bromo-2-fluoro-5-methyl- (9CI) (CA INDEX NAME)



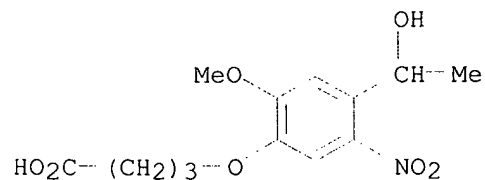
RN 161957-56-8 HCAPLUS

CN Benzoic acid, 3-bromo-2-fluoro- (9CI) (CA INDEX NAME)



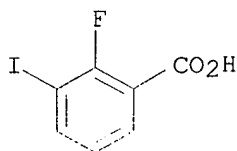
RN 175281-76-2 HCAPLUS

CN Butanoic acid, 4-[4-(1-hydroxyethyl)-2-methoxy-5-nitrophenoxy]- (9CI) (CA INDEX NAME)

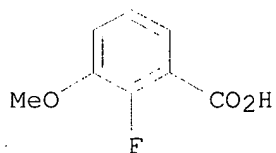


RN 447464-03-1 HCAPLUS

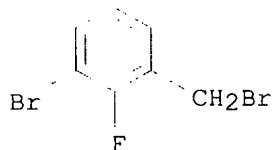
CN Benzoic acid, 2-fluoro-3-iodo- (9CI) (CA INDEX NAME)



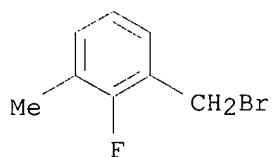
IT 137654-20-7P, 2-Fluoro-3-methoxybenzoic acid 149947-16-0P
 151412-12-3P, 1-Bromomethyl-2-fluoro-3-methylbenzene
 178974-59-9P 261723-32-4P 307975-02-6P
 307975-03-7P 307975-04-8P 307975-05-9P
 307975-06-0P 307975-07-1P 307975-08-2P
 307975-09-3P 447462-87-5P 447462-92-2P
 447463-07-2P 447463-13-0P 447463-17-4P
 447463-21-0P 447463-24-3P 447463-27-6P
 447463-29-8P 447463-31-2P 447463-33-4P
 447463-56-1P, 1-Bromomethyl-2-fluoro-3-methoxybenzene
 447463-62-9P 447463-68-5P 447463-77-6P
 447463-83-4P 447463-87-8P 447463-88-9P
 447463-91-4P, 2-Fluoro-5-methoxy-3-methylbenzoic acid
 447463-95-8P, 2-Fluoro-3-methoxy-5-methylbenzoic acid
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. of aryl fluoride tags for attachment to resin support used in
 the synthesis of 19F-encoded combinatorial libraries)
 RN 137654-20-7 HCAPLUS
 CN Benzoic acid, 2-fluoro-3-methoxy- (9CI) (CA INDEX NAME)



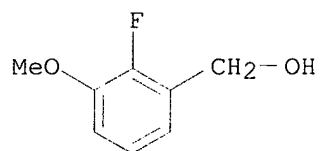
RN 149947-16-0 HCAPLUS
 CN Benzene, 1-bromo-3-(bromomethyl)-2-fluoro- (9CI) (CA INDEX NAME)



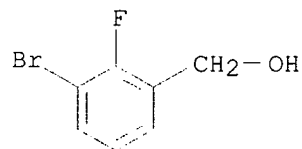
RN 151412-12-3 HCAPLUS
 CN Benzene, 1-(bromomethyl)-2-fluoro-3-methyl- (9CI) (CA INDEX NAME)



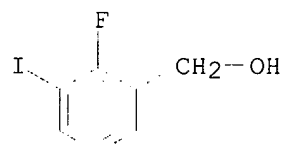
RN 178974-59-9 HCAPLUS
 CN Benzenemethanol, 2-fluoro-3-methoxy- (9CI) (CA INDEX NAME)



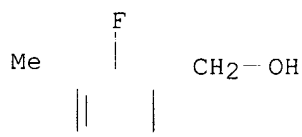
RN 261723-32-4 HCAPLUS
 CN Benzenemethanol, 3-bromo-2-fluoro- (9CI) (CA INDEX NAME)



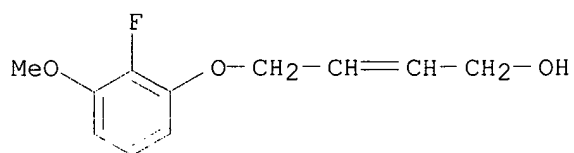
RN 307975-02-6 HCAPLUS
 CN Benzenemethanol, 2-fluoro-3-iodo- (9CI) (CA INDEX NAME)



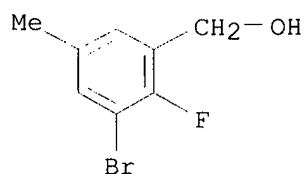
RN 307975-03-7 HCAPLUS
 CN Benzenemethanol, 2-fluoro-3-methyl- (9CI) (CA INDEX NAME)



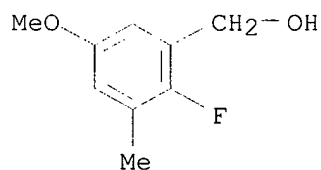
RN 307975-04-8 HCAPLUS
 CN 2-Buten-1-ol, 4-(2-fluoro-3-methoxyphenoxy)- (9CI) (CA INDEX NAME)



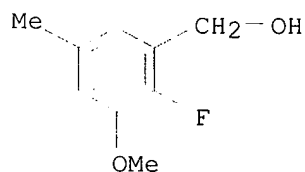
RN 307975-05-9 HCAPLUS
CN Benzenemethanol, 3-bromo-2-fluoro-5-methyl- (9CI) (CA INDEX NAME)



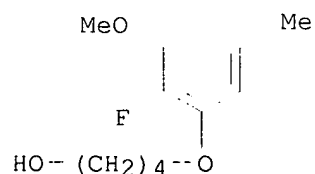
RN 307975-06-0 HCAPLUS
CN Benzenemethanol, 2-fluoro-5-methoxy-3-methyl- (9CI) (CA INDEX NAME)



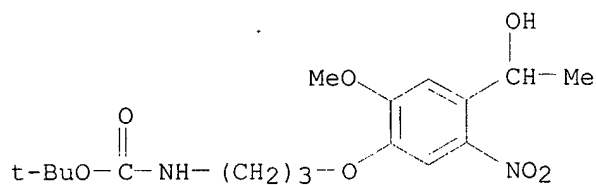
RN 307975-07-1 HCAPLUS
CN Benzenemethanol, 2-fluoro-3-methoxy-5-methyl- (9CI) (CA INDEX NAME)



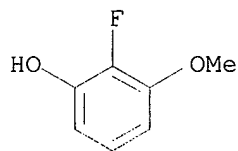
RN 307975-08-2 HCAPLUS
CN 1-Butanol, 4-(2-fluoro-3-methoxy-5-methylphenoxy)- (9CI) (CA INDEX NAME)



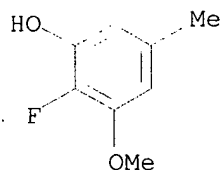
RN 307975-09-3 HCAPLUS
CN Carbamic acid, [3-{4-(1-hydroxyethyl)-2-methoxy-5-nitrophenoxy}propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



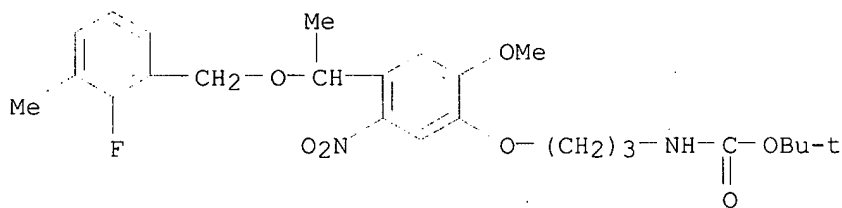
RN 447462-87-5 HCAPLUS
 CN Phenol, 2-fluoro-3-methoxy- (9CI) (CA INDEX NAME)



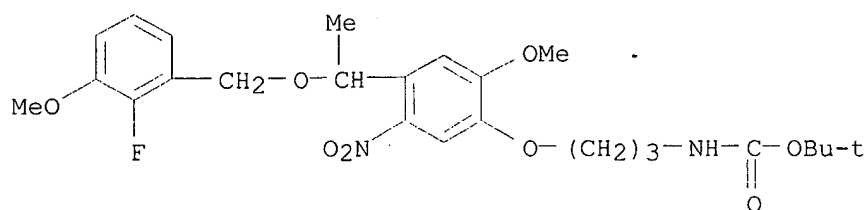
RN 447462-92-2 HCAPLUS
 CN Phenol, 2-fluoro-3-methoxy-5-methyl- (9CI) (CA INDEX NAME)



RN 447463-07-2 HCAPLUS
 CN Carbamic acid, [3-[4-[1-[(2-fluoro-3-methylphenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

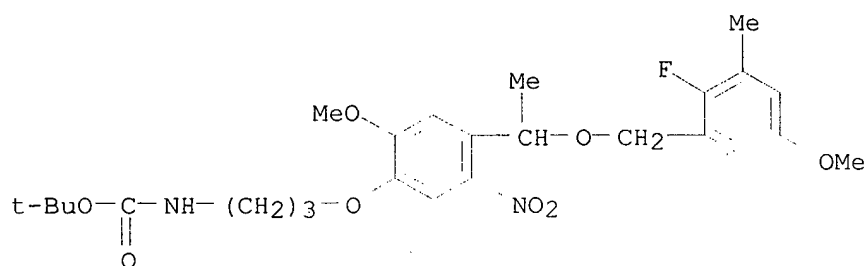


RN 447463-13-0 HCAPLUS
 CN Carbamic acid, [3-[4-[1-[(2-fluoro-3-methoxyphenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



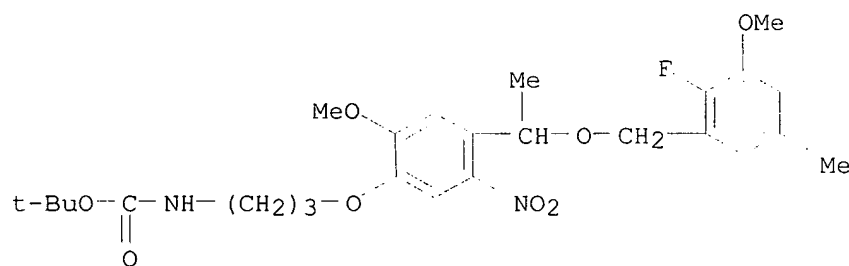
RN 447463-17-4 HCAPLUS

CN Carbamic acid, [3-[4-[1-[(2-fluoro-5-methoxy-3-methylphenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



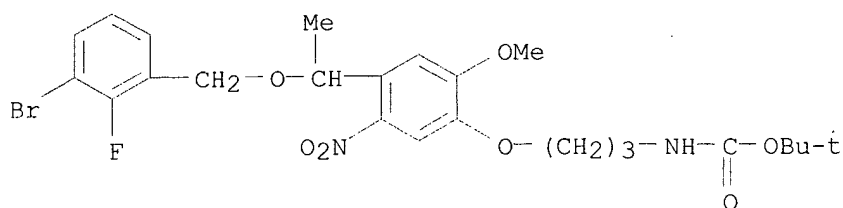
RN 447463-21-0 HCAPLUS

CN Carbamic acid, [3-[4-[1-[(2-fluoro-3-methoxy-5-methylphenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

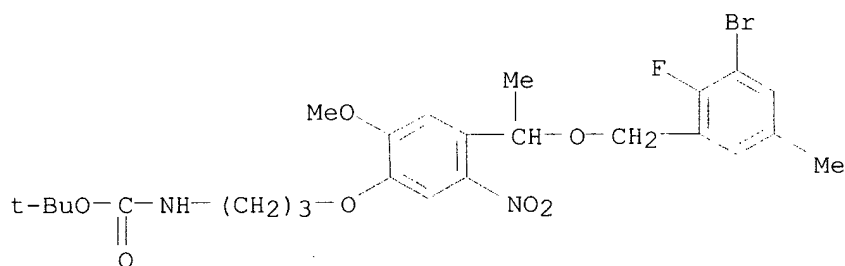


RN 447463-24-3 HCAPLUS

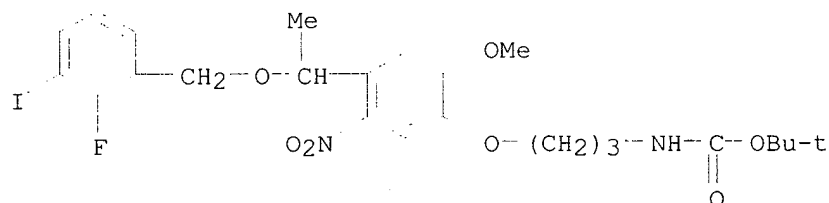
CN Carbamic acid, [3-[4-[1-[(3-bromo-2-fluorophenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 447463-27-6 HCAPLUS
 CN Carbamic acid, [3-[4-[1-[(3-bromo-2-fluoro-5-methylphenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

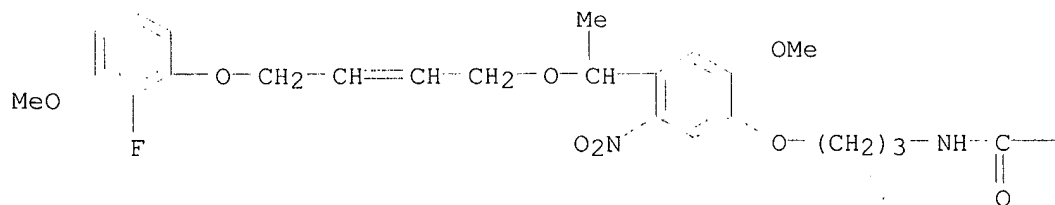


RN 447463-29-8 HCAPLUS
 CN Carbamic acid, [3-[4-[1-[(2-fluoro-3-iodophenyl)methoxy]ethyl]-2-methoxy-5-nitrophenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



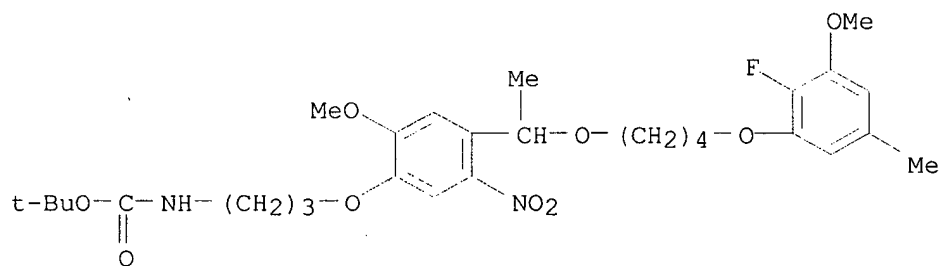
RN 447463-31-2 HCAPLUS
 CN Carbamic acid, [3-[4-[1-[[4-(2-fluoro-3-methoxyphenoxy)-2-butenyl]oxy]ethyl]-2-methoxy-5-nitrophenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

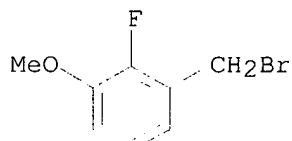


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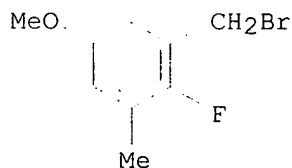
RN 447463-33-4 HCAPLUS
 CN Carbamic acid, [3-[4-[1-[4-(2-fluoro-3-methoxy-5-methylphenoxy)butoxy]ethyl]-2-methoxy-5-nitrophenoxy]propyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



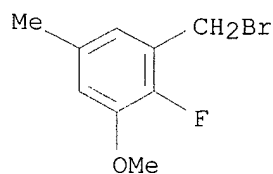
RN 447463-56-1 HCAPLUS
 CN Benzene, 1-(bromomethyl)-2-fluoro-3-methoxy- (9CI) (CA INDEX NAME)



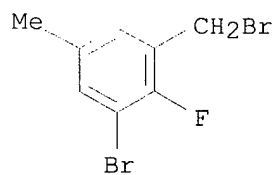
RN 447463-62-9 HCAPLUS
 CN Benzene, 1-(bromomethyl)-2-fluoro-5-methoxy-3-methyl- (9CI) (CA INDEX NAME)



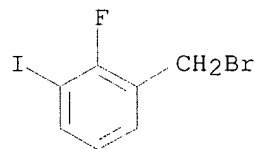
RN 447463-68-5 HCAPLUS
 CN Benzene, 1-(bromomethyl)-2-fluoro-3-methoxy-5-methyl- (9CI) (CA INDEX NAME)



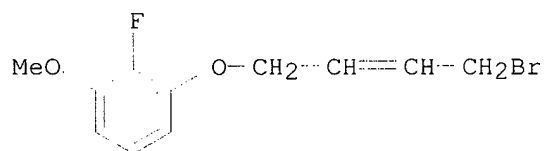
RN 447463-77-6 HCAPLUS
CN Benzene, 1-bromo-3-(bromomethyl)-2-fluoro-5-methyl- (9CI) (CA INDEX NAME)



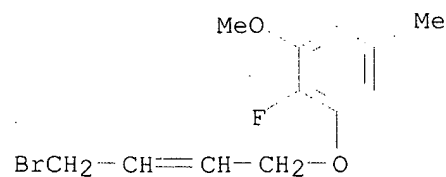
RN 447463-83-4 HCAPLUS
CN Benzene, 1-(bromomethyl)-2-fluoro-3-iodo- (9CI) (CA INDEX NAME)



RN 447463-87-8 HCAPLUS
CN Benzene, 1-[(4-bromo-2-butenyl)oxy]-2-fluoro-3-methoxy- (9CI) (CA INDEX NAME)



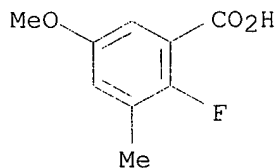
RN 447463-88-9 HCAPLUS
CN Benzene, 1-[(4-bromo-2-butenyl)oxy]-2-fluoro-3-methoxy-5-methyl- (9CI) (CA INDEX NAME)



RN 447463-91-4 HCAPLUS

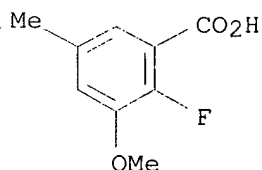
TRAN 09/871,691

CN Benzoic acid, 2-fluoro-5-methoxy-3-methyl- (9CI) (CA INDEX NAME)



RN 447463-95-8 HCAPLUS

CN Benzoic acid, 2-fluoro-3-methoxy-5-methyl- (9CI) (CA INDEX NAME)



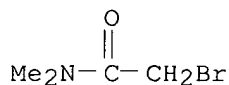
IT 5468-77-9, 2-Bromo-N,N-dimethylacetamide

RL: RCT (Reactant); RACT (Reactant or reagent)

(repeat synthesis of the peptoids with metal-binding abilities that were obtained by 19F-encoded combinatorial methods)

RN 5468-77-9 HCAPLUS

CN Acetamide, 2-bromo-N,N-dimethyl- (6CI, 9CI) (CA INDEX NAME)



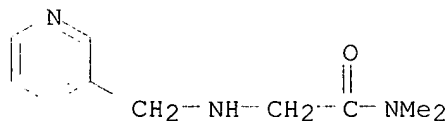
IT 136470-09-2P 447463-44-7P 447465-15-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(repeat synthesis of the peptoids with metal-binding abilities that were obtained by 19F-encoded combinatorial methods)

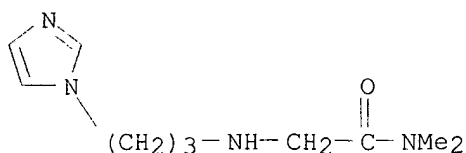
RN 136470-09-2 HCAPLUS

CN Acetamide, N,N-dimethyl-2-[(3-pyridinylmethyl)amino]- (9CI) (CA INDEX NAME)

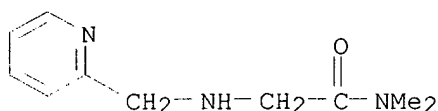


RN 447463-44-7 HCAPLUS

CN Acetamide, 2-[[3-(1H-imidazol-1-yl)propyl]amino]-N,N-dimethyl- (9CI) (CA INDEX NAME)



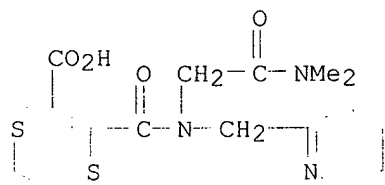
RN 447465-15-8 HCAPLUS
 CN Acetamide, N,N-dimethyl-2-[(2-pyridinylmethyl)amino]- (9CI) (CA INDEX NAME)



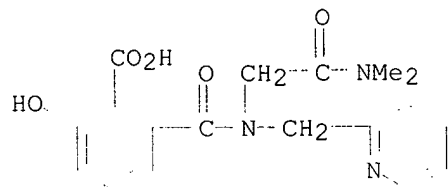
IT 307975-13-9P 447463-42-5P 447463-46-9P
 447463-48-1P

RL: CPN (Combinatorial preparation); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); CMBI (Combinatorial study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
 (synthesis of a library of peptoids with metal-binding abilities via solid-phase, 19F-encoded combinatorial methods)

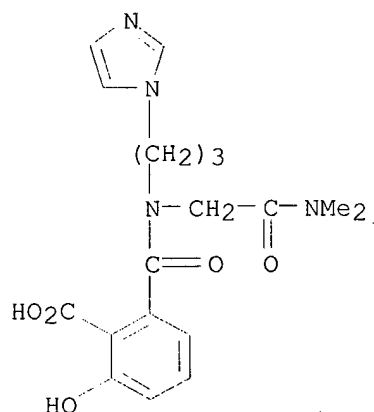
RN 307975-13-9 HCAPLUS
 CN 1,4-Dithiin-2-carboxylic acid, 3-[[[2-(dimethylamino)-2-oxoethyl](2-pyridinylmethyl)amino]carbonyl]-5,6-dihydro- (9CI) (CA INDEX NAME)



RN 447463-42-5 HCAPLUS
 CN Benzoic acid, 2-[[[2-(dimethylamino)-2-oxoethyl](2-pyridinylmethyl)amino]carbonyl]-6-hydroxy- (9CI) (CA INDEX NAME)

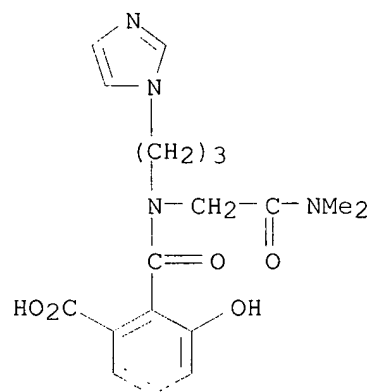


RN 447463-46-9 HCAPLUS
 CN Benzoic acid, 2-[[[2-(dimethylamino)-2-oxoethyl][3-(1H-imidazol-1-yl)propyl]amino]carbonyl]-6-hydroxy- (9CI) (CA INDEX NAME)



RN 447463-48-1 HCAPLUS

CN Benzoic acid, 2-[[[2-(dimethylamino)-2-oxoethyl][3-(1H-imidazol-1-yl)propyl]amino]carbonyl]-3-hydroxy- (9CI) (CA INDEX NAME)

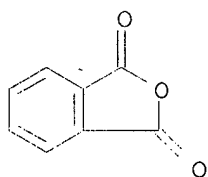


IT 85-44-9, 1,3-Isobenzofurandione 108-30-5, Succinic anhydride, reactions 109-55-7 641-70-3
 699-30-9 3731-51-9, 2-Pyridinemethanamine
 3731-52-0, 3-Pyridinemethanamine 5036-48-6,
 1H-Imidazole-1-propanamine 5426-09-5 5617-74-3,
 3-Oxabicyclo[3.1.0]hexane-2,4-dione 7663-77-6 10489-75-5
 13149-00-3 14166-21-3 37418-88-5

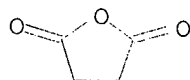
RL: CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); RACT (Reactant or reagent)
 (19F-encoded, combinatorial solid-phase synthesis of a library of peptoids from amines and cyclic anhydrides)

RN 85-44-9 HCAPLUS

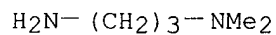
CN 1,3-Isobenzofurandione (9CI) (CA INDEX NAME)



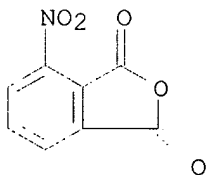
RN 108-30-5 HCAPLUS
CN 2,5-Furandione, dihydro- (9CI) (CA INDEX NAME)



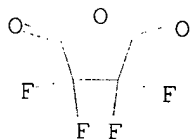
RN 109-55-7 HCAPLUS
CN 1,3-Propanediamine, N,N-dimethyl- (6CI, 8CI, 9CI) (CA INDEX NAME)



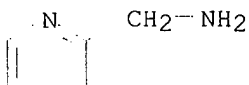
RN 641-70-3 HCAPLUS
CN 1,3-Isobenzofurandione, 4-nitro- (9CI) (CA INDEX NAME)



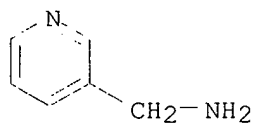
RN 699-30-9 HCAPLUS
CN 2,5-Furandione, 3,3,4,4-tetrafluorodihydro- (9CI) (CA INDEX NAME)



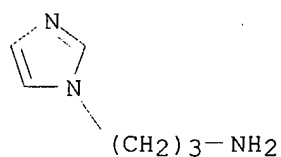
RN 3731-51-9 HCAPLUS
CN 2-Pyridinemethanamine (9CI) (CA INDEX NAME)



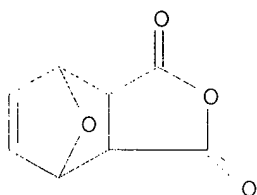
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CN 3-Pyridinemethanamine (9CI) (CA INDEX NAME)



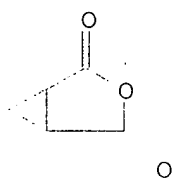
RN 5036-48-6 HCAPLUS
CN 1H-Imidazole-1-propanamine (9CI) (CA INDEX NAME)



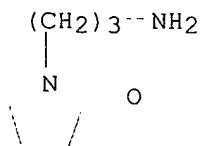
RN 5426-09-5 HCAPLUS
CN 4,7-Epoxyisobenzofuran-1,3-dione, 3a,4,7,7a-tetrahydro- (9CI) (CA INDEX NAME)



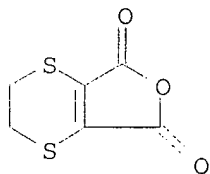
RN 5617-74-3 HCAPLUS
CN 3-Oxabicyclo[3.1.0]hexane-2,4-dione (9CI) (CA INDEX NAME)



RN 7663-77-6 HCAPLUS
CN 2-Pyrrolidinone, 1-(3-aminopropyl)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

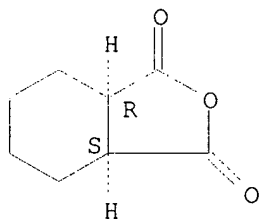


RN 10489-75-5 HCAPLUS
CN 1,4-Dithiino[2,3-c]furan-5,7-dione, 2,3-dihydro- (9CI) (CA INDEX NAME)



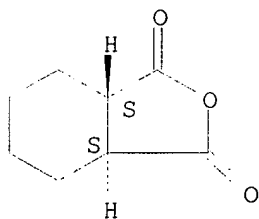
RN 13149-00-3 HCAPLUS
CN 1,3-Isobenzofurandione, hexahydro-, (3aR,7aS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

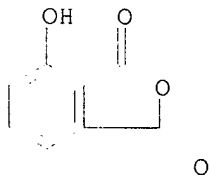


RN 14166-21-3 HCAPLUS
CN 1,3-Isobenzofurandione, hexahydro-, (3aR,7aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

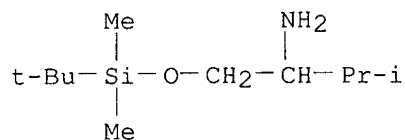


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CN 1,3-Isobenzofurandione, 4-hydroxy- (9CI) (CA INDEX NAME)



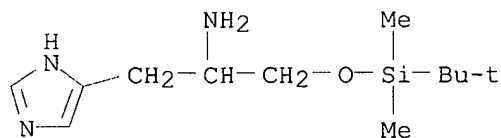
IT 116775-10-1P 184238-60-6P 307975-10-6P
307975-11-7P
RL: CRT (Combinatorial reactant); RCT (Reactant); SPN (Synthetic preparation); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent)
(19F-encoded, combinatorial solid-phase synthesis of a library of peptoids from amines and cyclic anhydrides)
RN 116775-10-1 HCAPLUS

CN 2-Butanamine, 1-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-3-methyl- (9CI)
(CA INDEX NAME)



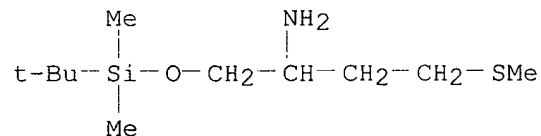
RN 184238-60-6 HCAPLUS

CN 1H-Imidazole-4-ethanamine, .alpha.-[[[(1,1-dimethylethyl)dimethylsilyl]oxy
]methyl]- (9CI) (CA INDEX NAME)



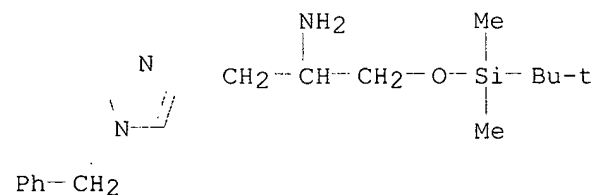
RN 307975-10-6 HCAPLUS

CN 2-Butanamine, 1-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-4-(methylthio)-
(9CI) (CA INDEX NAME)



RN 307975-11-7 HCAPLUS

CN 1H-Imidazole-4-ethanamine, .alpha.-[[[(1,1-dimethylethyl)dimethylsilyl]oxy
]methyl]-1-(phenylmethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L25 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:766466 HCAPLUS

DOCUMENT NUMBER: 132:134307

TITLE: Novel Reagents and Procedures for Immobilization of DNA on **Glass** Microchips for Primer ExtensionAUTHOR(S): **Pirrung, Michael C.**; Davis, Janice D.; **Odenbaugh, Amy L.**

CORPORATE SOURCE: Department of Chemistry Levine Science Research Center, Duke University, Durham, NC, 27708-0317, USA

SOURCE: Langmuir (2000), 16(5), 2185-2191

CODEN: LANGD5; ISSN: 0743-7463

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

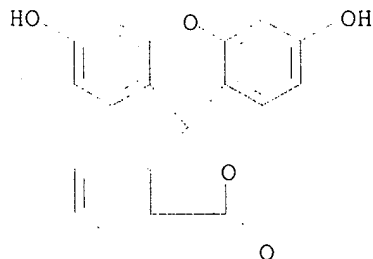
AB A new method for attaching oligodeoxyribonucleotides to **glass** involving monoalkoxylated and dialkoxylated **silanes** and **bromoacetamide**/phosphorothioate linking chem. has been developed. Three novel **bromoacetamide silanes** were synthesized for derivatization of **glass** microscope slides by traditional dipping methods. A thin film method that conserves **silane** and provides a consistent protocol for test expts. was also used. Oligonucleotides bearing 5'-phosphorothioates were synthesized by literature methods. Immobilization conditions were initially established by treatment of **bromoacetamidodisilyl** slides with fluoresceinated oligonucleotides, which were imaged by confocal fluorescence microscopy. Spotting can be accomplished in water at oligonucleotide concns. down to 0.1 mM. Oligonucleotides immobilized using this method can serve as primers for templated, polymerase-based extension reactions with a fluoresceinated dideoxynucleotide terminator. When such primers are formatted into small arrays, specific extension is obsd. only in the presence of complementary template, with the amt. of immobilized primer reflected in the fluorescence signal.

IT 2321-07-5P

RL: ARG (Analytical reagent use); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); PROC (Process); USES (Uses)
 (3'-conjugate with primer; novel reagents and procedures for immobilization of DNA on **glass** microchips for primer extension)

RN 2321-07-5 HCAPLUS

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI)
 (CA INDEX NAME)



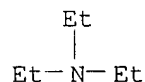
IT 121-44-8, reactions 598-21-0, **Bromoacetyl**
 bromide 3179-76-8 18306-79-1, (3-Aminopropyl)

dimethylethoxysilane 113641-37-5, (3-Cyanopropyl)
diisopropylchlorosilane

RL: RCT (Reactant); RACT (Reactant or reagent)
(novel reagents and procedures for immobilization of DNA on
glass microchips for primer extension)

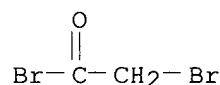
RN 121-44-8 HCAPLUS

CN Ethanamine, N,N-diethyl- (9CI) (CA INDEX NAME)



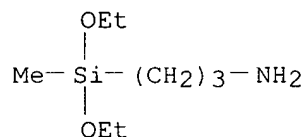
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CN Acetyl bromide, bromo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



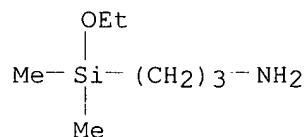
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CN 1-Propanamine, 3-(diethoxymethylsilyl)- (9CI) (CA INDEX NAME)



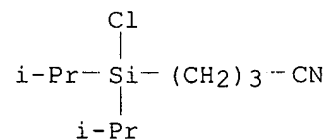
RN 18306-79-1 HCAPLUS

CN 1-Propanamine, 3-(ethoxydimethylsilyl)- (9CI) (CA INDEX NAME)



RN 113641-37-5 HCAPLUS

CN Butanenitrile, 4-[chlorobis(1-methylethyl)silyl]- (9CI) (CA INDEX NAME)



IT 256352-86-0P 256352-87-1P 256352-88-2P

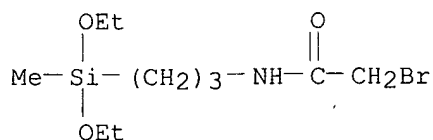
256352-89-3P 256352-90-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(novel reagents and procedures for immobilization of DNA on
glass microchips for primer extension)

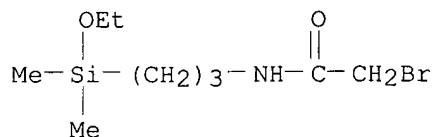
RN 256352-86-0 HCAPLUS

CN Acetamide, 2-bromo-N-[3-(diethoxymethylsilyl)propyl]- (9CI) (CA INDEX NAME)



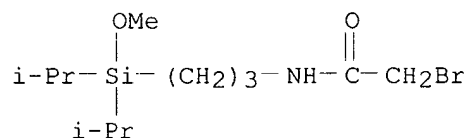
RN 256352-87-1 HCAPLUS

CN Acetamide, 2-bromo-N-[3-(ethoxydimethylsilyl)propyl]- (9CI) (CA INDEX NAME)



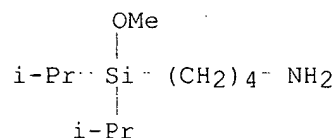
RN 256352-88-2 HCAPLUS

CN Acetamide, 2-bromo-N-[3-[methoxybis(1-methylethyl)silyl]propyl]- (9CI) (CA INDEX NAME)



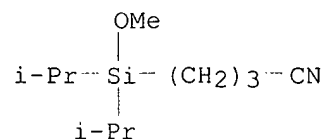
RN 256352-89-3 HCAPLUS

CN 1-Butanamine, 4-[methoxybis(1-methylethyl)silyl]- (9CI) (CA INDEX NAME)



RN 256352-90-6 HCAPLUS

CN Butanenitrile, 4-[methoxybis(1-methylethyl)silyl]- (9CI) (CA INDEX NAME)



TRAN 09/871,691

REFERENCE COUNT:

30

THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr 4

L25 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1995:950178 HCAPLUS

DOCUMENT NUMBER: 124:4450

TITLE: Spatially-Addressable Immobilization of Macromolecules on **Solid Supports**

AUTHOR(S): Sundberg, Steven A.; Barrett, Ronald W.; **Pirrung, Michael**; Lu, Amy L.; Kiangsoontra, Benjang; Holmes, Christopher P.

CORPORATE SOURCE: Affymax Research Institute, Santa Clara, CA, 95051, USA

SOURCE: Journal of the American Chemical Society (1995), 117(49), 12050-7

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A method is described for immobilization of receptors, antibodies, or other macromols. at precise locations on solid substrates. The authors have combined photolithog. techniques with the use of a "caged" biotin analog that has been covalently linked to the substrate surface. Exposure to near UV light through a photolithog. mask yields biotin sites for streptavidin binding. Biotinylated macromols. are then immobilized via a biotin-streptavidin-biotin bridge. Mols. may be attached at selected locations by carrying out repeated rounds of exposure, streptavidin binding, and application of the biotinylated reagent. The authors have demonstrated the immobilization of fluorescein-streptavidin mols. in 500 .mu.m .times. 500 .mu.m sites, and the localization of two biotinylated antibodies at different sites on a planar substrate surface. The authors anticipate that the technique will prove useful in drug screening, diagnostics, and biosensor applications.

=> d ibib abs hitstr 5

L25 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1993:229753 HCAPLUS

DOCUMENT NUMBER: 118:229753

TITLE: Large-scale photolithographic solid-phase synthesis of polypeptides and receptor binding screening thereof

INVENTOR(S): Pirrung, Michael C.; Read, J. Leighton;

Fodor, Stephen P. A.; Stryer, Lubert

PATENT ASSIGNEE(S): Affymax Technologies N. V., Neth. Antilles

SOURCE: U.S., 40 pp. Cont.-in-part of U.S. Ser. No. 362,901, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 16

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5143854	A	19920901	US 1990-492462	19900307
IL 94551	A1	19950330	IL 1990-94551	19900529
ZA 9004354	A	19910828	ZA 1990-4354	19900606
CA 2054706	AA	19901208	CA 1990-2054706	19900607
WO 9015070	A1	19901213	WO 1990-NL81	19900607
W: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, RO, SD, SE, SU				
RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG				
AU 9058371	A1	19910107	AU 1990-58371	19900607
AU 651795	B2	19940804		
NL 9022056	A	19920302	NL 1990-22056	19900607
NL 191992	B	19960801		
NL 191992	C	19961203		
EP 476014	A1	19920325	EP 1990-909187	19900607
EP 476014	B1	19940831		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
BR 9007425	A	19920721	BR 1990-7425	19900607
HU 59938	A2	19920728	HU 1990-4730	19900607
JP 04505763	T2	19921008	JP 1990-508966	19900607
EP 619321	A1	19941012	EP 1994-200059	19900607
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ES 2058921	T3	19941101	ES 1990-909187	19900607
AT 175421	E	19990115	AT 1994-200059	19900607
JP 11021293	A2	19990126	JP 1996-324451	19900607
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JP 11315095	A2	19991116	JP 1999-49217	19900607
TW 434254	B	20010516	TW 1990-79105390	19900629
US 5547839	A	19960820	US 1990-626730	19901206
NO 9104826	A	19911206	NO 1991-4826	19911206
GB 2248840	A1	19920422	GB 1991-25996	19911206
GB 2248840	B2	19931201		
US 5424186	A	19950613	US 1991-805727	19911206

TRAN 09/871,691

KR 9701577	B1	19970211	KR 1991-71791	19911206
US 5405783	A	19950411	US 1992-850356	19920312
US 5445934	A	19950829	US 1992-954646	19920930
US 5510270	A	19960423	US 1992-954519	19920930
US 5527681	A	19960618	US 1992-972007	19921105
AU 9477655	A1	19950504	AU 1994-77655	19941104
AU 672723	B2	19961010		
US 6420169	B1	20020716	US 1994-348471	19941130
US 5744101	A	19980428	US 1995-388321	19950214
US 5489678	A	19960206	US 1995-390272	19950216
US 5753788	A	19980519	US 1995-446177	19950519
US 5889165	A	19990330	US 1995-444598	19950519
US 6225625	B1	20010501	US 1995-456598	19950601
US 6406844	B1	20020618	US 1995-456887	19950601
US 5744305	A	19980428	US 1995-466632	19950606
US 5770456	A	19980623	US 1996-647618	19960513
US 5800992	A	19980901	US 1996-670118	19960625
US 5902723	A	19990511	US 1996-679478	19960712
KR 9701578	B1	19970211	KR 1996-75897	19961021
US 2001036629	A1	20011101	US 1997-829893	19970402
US 5871928	A	19990216	US 1997-873034	19970611
US 6197506	B1	20010306	US 1998-56927	19980408
US 6124102	A	20000926	US 1998-63936	19980421
US 6329143	B1	20011211	US 1998-129470	19980804
US 6261776	B1	20010717	US 1999-292455	19990415
US 6440667	B1	20020827	US 1999-362089	19990728
US 6291183	B1	20010918	US 1999-442028	19991117
US 6346413	B1	20020212	US 1999-442027	19991117
US 6310189	B1	20011030	US 2000-490580	20000125
US 6355432	B1	20020312	US 2000-585659	20000602
US 6395491	B1	20020528	US 2000-585557	20000602
US 6379895	B1	20020430	US 2000-654435	20000901
US 6416952	B1	20020709	US 2000-654206	20000901
US 6403320	B1	20020611	US 2000-684377	20001005
US 6403957	B1	20020611	US 2000-690191	20001016
US 2002164590	A1	20021107	US 2001-768626	20010125
US 2002155588	A1	20021024	US 2001-946605	20010905
US 2002064796	A1	20020530	US 2001-4501	20011206
US 2002137096	A1	20020926	US 2001-14716	20011214
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			US 1989-435316	A 19891113
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			EP 1990-909187	A3 19900607
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			EP 1998-203518	A3 19900607
			JP 1990-508966	A3 19900607
			WO 1990-NL81	A 19900607
			US 1990-612671	A 19901113
			US 1990-624114	B1 19901206
			US 1990-624120	A2 19901206
			US 1990-626730	A1 19901206
			US 1991-796243	A 19911122
			US 1991-796727	A2 19911122
			US 1991-805727	A2 19911206
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			US 1992-954646	A3 19920930
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US 1996-679478	A1 19960712
US 1998-56927	A3 19980408
US 1998-63933	A1 19980421
US 1998-129470	A1 19980804
US 1999-245212	B1 19990205
US 1999-362089	A1 19990728
US 2000-557875	A1 20000424
US 2000-670563	A1 20000927
US 2000-724928	A1 20001128

AB Polypeptide arrays can be synthesized on a substrate by attaching photoremovable groups to the surface of a substrate, exposing selected regions of the substrate to light to activate those regions, attaching an amino acid monomer with a photoremovable group to the activated regions, and repeating the steps of activation and attachment until polypeptides of the desired length and sequences are synthesized. The resulting array can be used to det. which peptides on the array can bind to a receptor, e.g. an antibody. A slide was derivatized with **aminopropyltriethoxysilane** and protected with a nitroveratryloxycarbonyl protecting group. A 500 .mu.m checkerboard mask was used to expose the slide in a flow cell using backside contact printing. Leu enkephalin (YGGFL) was attached via its carboxyl end to the exposed amino groups on the surface of the slide. Binding of the peptide by an antibody (Herz antibody) was detected using a 2nd, goat anti-mouse fluoresceinated antibody. Similar techniques were used to test binding of the Herz antibody to arrays of differing sequences.

IT 1303-00-0, Gallium arsenide, uses 7440-21-3, Silicon, uses 7440-56-4, Germanium, uses 7631-86-9, Silicon oxide, uses 9002-84-0, Poly(tetrafluoroethylene) 9003-53-6, Polystyrene 12033-89-5, Silicon nitride, biological studies 12063-98-8, Gallium phosphide, uses RL: USES (Uses)
(as substrate in photolithog. solid-phase peptide synthesis)

RN 1303-00-0 HCAPLUS

CN Gallium arsenide (GaAs) (8CI, 9CI) (CA INDEX NAME)

Ga \equiv As

RN 7440-21-3 HCAPLUS

CN Silicon (7CI, 8CI, 9CI) (CA INDEX NAME)

Si

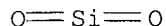
RN 7440-56-4 HCAPLUS

CN Germanium (7CI, 8CI, 9CI) (CA INDEX NAME)

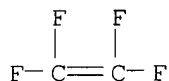
Ge

RN 7631-86-9 HCAPLUS

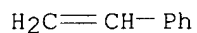
CN Silica (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 9002-84-0 HCAPLUS
 CN Ethene, tetrafluoro-, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 116-14-3
 CMF C2 F4



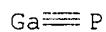
RN 9003-53-6 HCAPLUS
 CN Benzene, ethenyl-, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 100-42-5
 CMF C8 H8



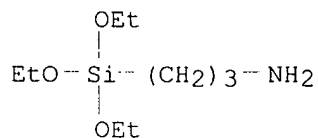
RN 12033-89-5 HCAPLUS
 CN Silicon nitride (Si3N4) (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 12063-98-8 HCAPLUS
 CN Gallium phosphide (GaP) (8CI, 9CI) (CA INDEX NAME)

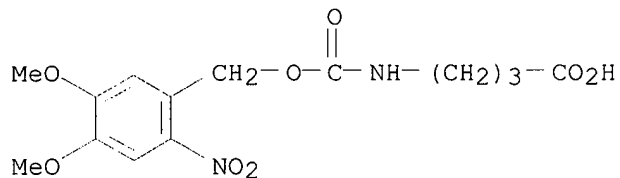


IT 919-30-2
 RL: ANST (Analytical study)
 (glass slide aminated with, for photolithog. solid-phase peptide synthesis)
 RN 919-30-2 HCAPLUS
 CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)

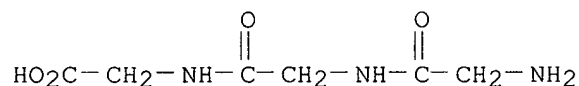


IT 147576-69-0
 RL: ANST (Analytical study)
 (in photolithog. solid-phase peptide synthesis)

RN 147576-69-0 HCAPLUS
 CN Butanoic acid, 4-[[[(4,5-dimethoxy-2-nitrophenyl)methoxy]carbonyl]amino]-
 (9CI) (CA INDEX NAME)

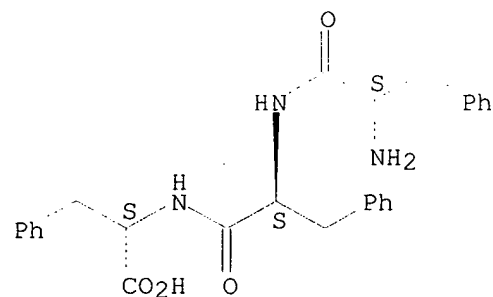


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 13116-21-7P 14656-09-8P 23576-42-3P
 67412-80-0P 87742-85-6P 133525-65-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of, by photolithog. solid-phase method)
 RN 556-33-2 HCAPLUS
 CN Glycine, glycylglycyl- (9CI) (CA INDEX NAME)



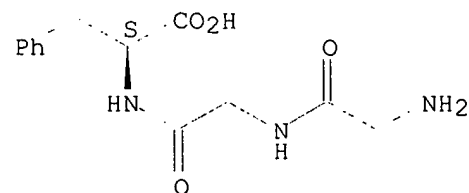
RN 2578-81-6 HCAPLUS
 CN L-Phenylalanine, L-phenylalanyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



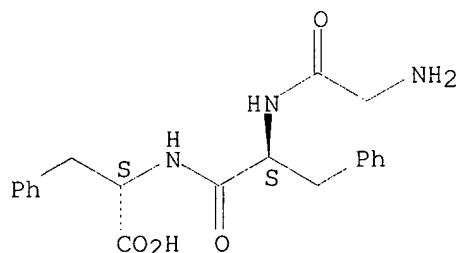
RN 6234-26-0 HCAPLUS
 CN L-Phenylalanine, glycylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



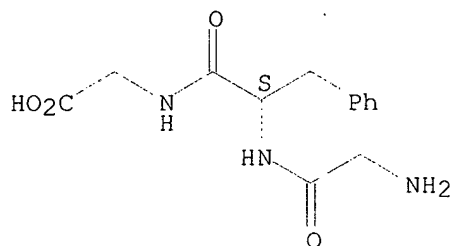
RN 13116-21-7 HCAPLUS
 CN L-Phenylalanine, glycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



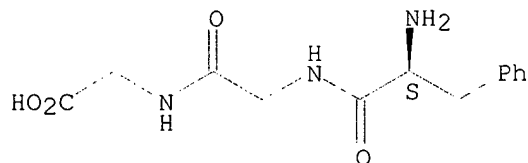
RN 14656-09-8 HCAPLUS
 CN Glycine, glycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



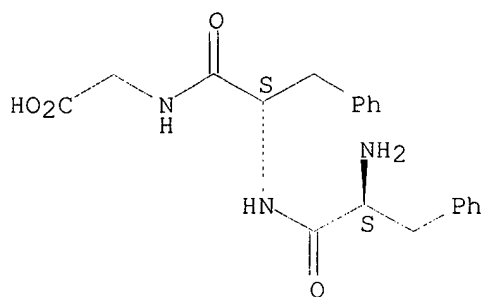
RN 23576-42-3 HCAPLUS
 CN Glycine, L-phenylalanylglycyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 67412-80-0 HCAPLUS
 CN Glycine, L-phenylalanyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

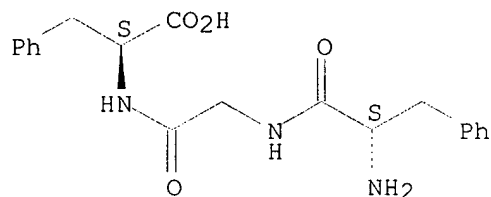
Absolute stereochemistry.



RN 87742-85-6 HCAPLUS

CN L-Phenylalanine, L-phenylalanylglycyl- (9CI) (CA INDEX NAME)

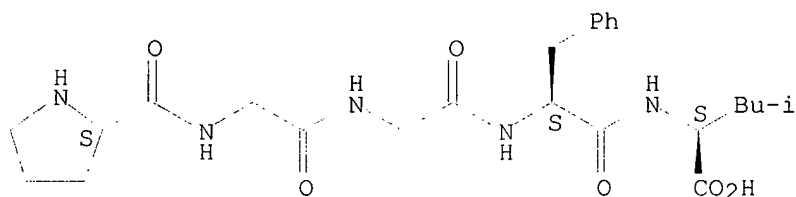
Absolute stereochemistry.



RN 133525-65-2 HCAPLUS

CN L-Leucine, L-prolylglycylglycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



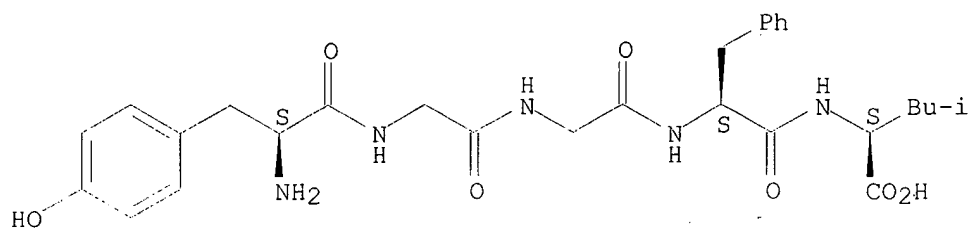
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64963-04-8P 64963-05-9P 64963-44-6P
84310-49-6P 98601-15-1P 135997-60-3P
135997-61-4P 135997-62-5P 135997-63-6P
135997-64-7P 135997-65-8P 135997-66-9P
135997-67-0P 135997-68-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, by photolithog. solid-phase method and Herz antibody
reactivity with)

RN 58822-25-6 HCAPLUS

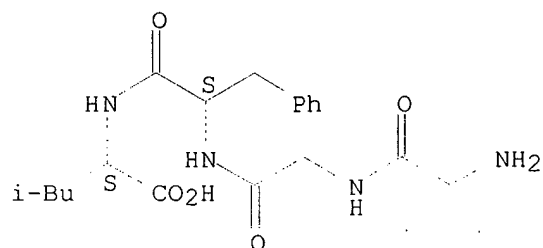
CN 1-5-.beta.-Neoendorphin (human) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



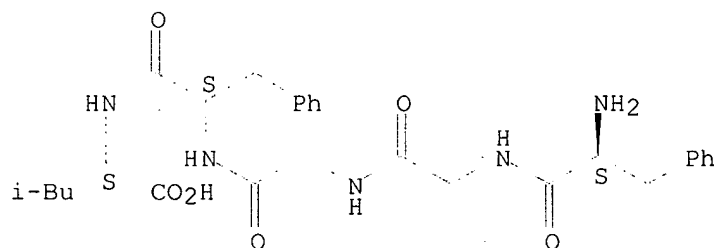
RN 60254-83-3 HCAPLUS
CN L-Leucine, glycylglycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



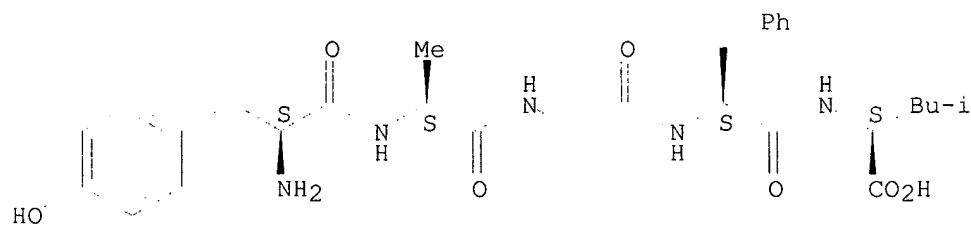
RN 60254-86-6 HCAPLUS
CN L-Leucine, L-phenylalanylglycylglycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 60284-47-1 HCAPLUS
CN L-Leucine, L-tyrosyl-L-alanylglycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

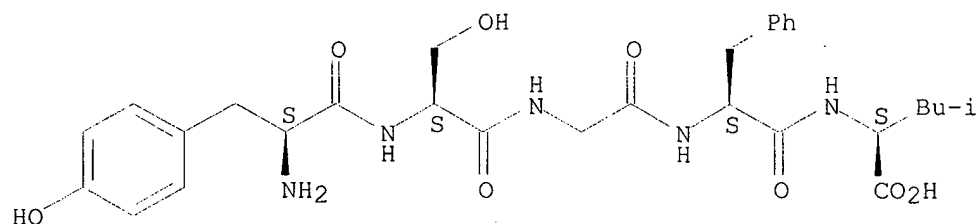
Absolute stereochemistry.



RN 63480-71-7 HCAPLUS

CN L-Leucine, N-[N-[N-(N-L-tyrosyl-L-seryl)glycyl]-L-phenylalanyl]- (9CI)
(CA INDEX NAME)

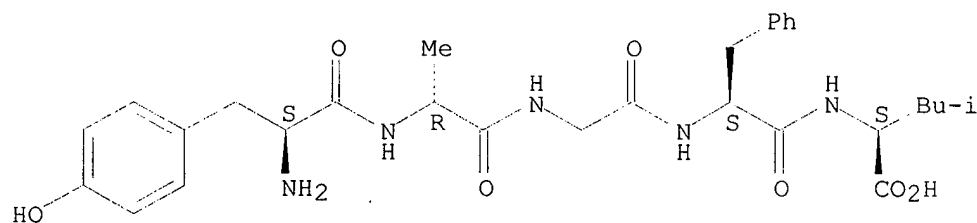
Absolute stereochemistry.



RN 64963-01-5 HCAPLUS

CN L-Leucine, L-tyrosyl-D-alanylglycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

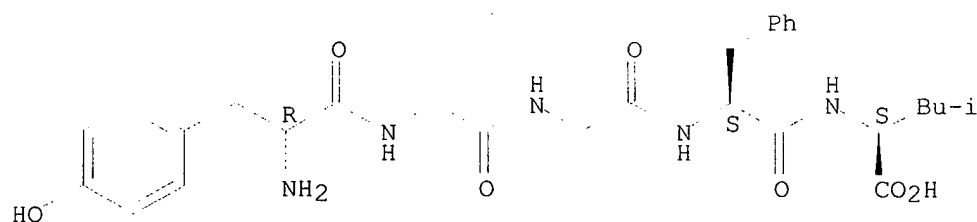
Absolute stereochemistry.



RN 64963-04-8 HCAPLUS

CN L-Leucine, D-tyrosylglycylglycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

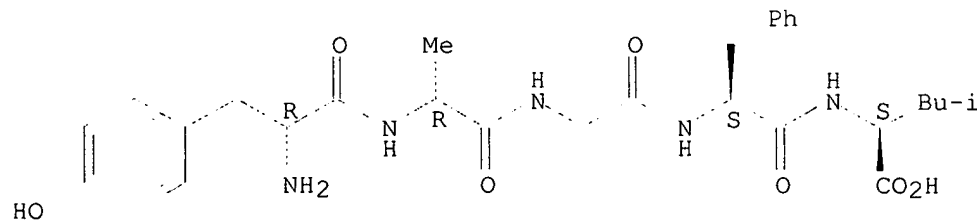
Absolute stereochemistry.



RN 64963-05-9 HCAPLUS

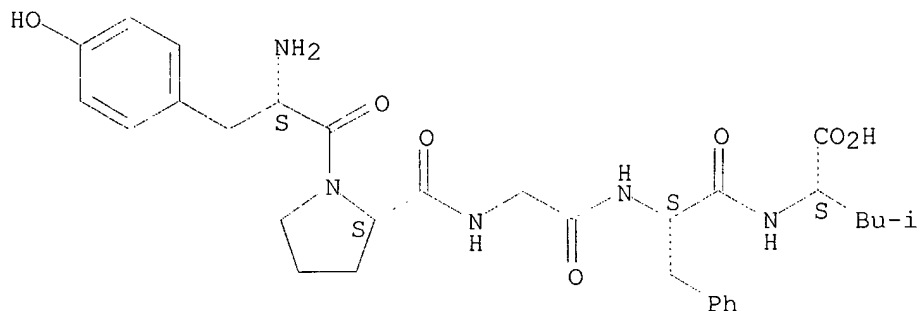
CN L-Leucine, D-tyrosyl-D-alanylglycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



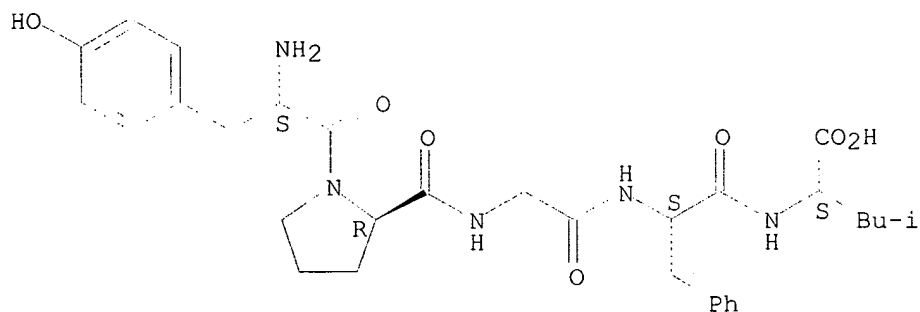
RN 64963-44-6 HCAPLUS
 CN L-Leucine, L-tyrosyl-L-prolylglycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



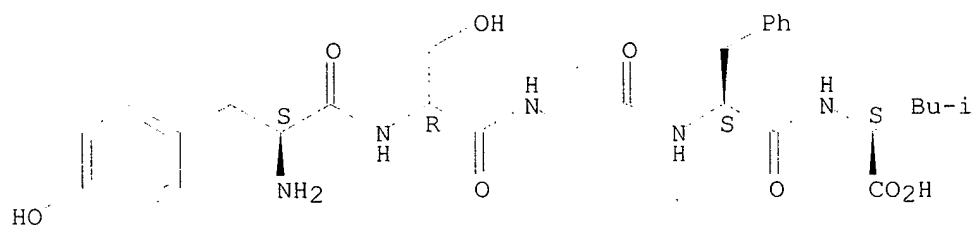
RN 84310-49-6 HCAPLUS
 CN L-Leucine, L-tyrosyl-D-prolylglycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



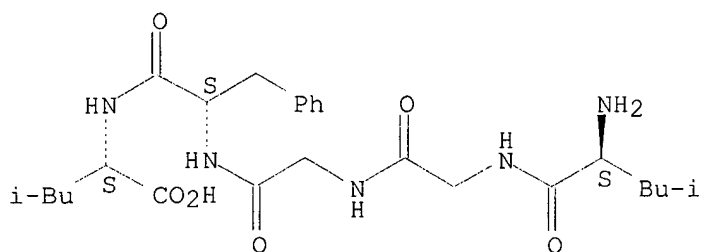
RN 98601-15-1 HCAPLUS
 CN L-Leucine, L-tyrosyl-D-serylglycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 135997-60-3 HCAPLUS
 CN L-Leucine, L-leucylglycylglycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

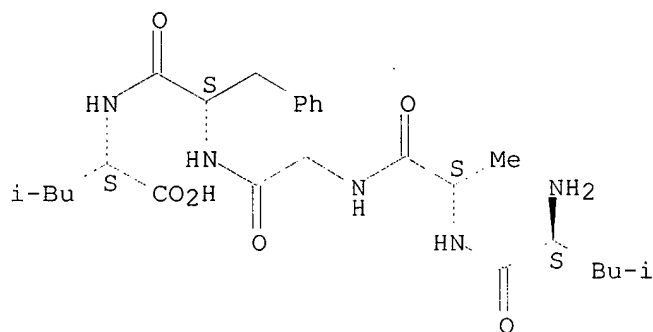
Absolute stereochemistry.



RN 135997-61-4 HCAPLUS

CN L-Leucine, N-[N-[N-(N-L-leucyl-L-alanyl)glycyl]-L-phenylalanyl]- (9CI)
(CA INDEX NAME)

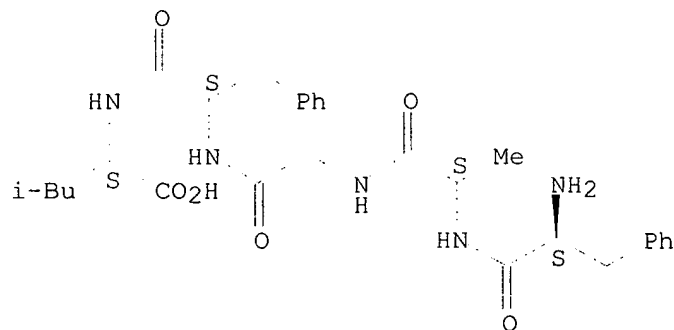
Absolute stereochemistry.



RN 135997-62-5 HCAPLUS

CN L-Leucine, N-[N-[N-(N-L-phenylalanyl-L-alanyl)glycyl]-L-phenylalanyl]-
(9CI) (CA INDEX NAME)

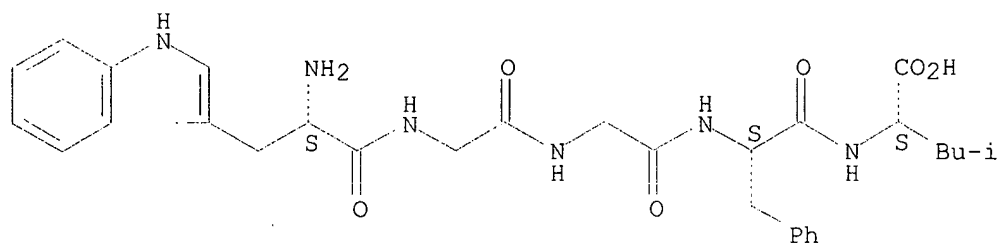
Absolute stereochemistry.



RN 135997-63-6 HCAPLUS

CN L-Leucine, N-[N-[N-(N-L-tryptophylglycyl)glycyl]-L-phenylalanyl]- (9CI)
(CA INDEX NAME)

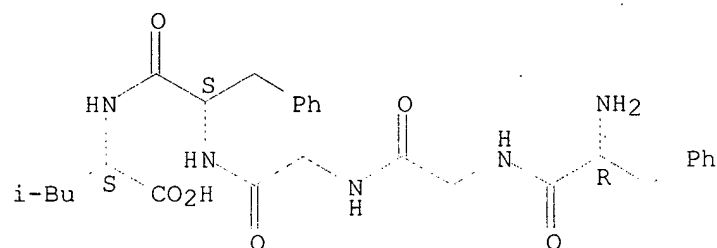
Absolute stereochemistry.



RN 135997-64-7 HCAPLUS

CN L-Leucine, N-[N-[N-(N-D-phenylalanylglycyl)glycyl]-L-phenylalanyl]- (9CI)
(CA INDEX NAME)

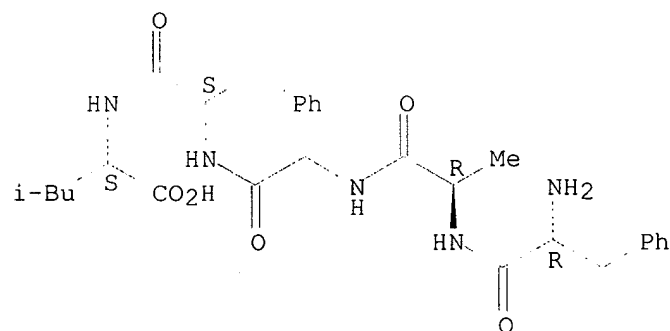
Absolute stereochemistry.



RN 135997-65-8 HCAPLUS

CN L-Leucine, N-[N-[N-(N-D-phenylalanyl-D-alanyl)glycyl]-L-phenylalanyl]-
(9CI) (CA INDEX NAME)

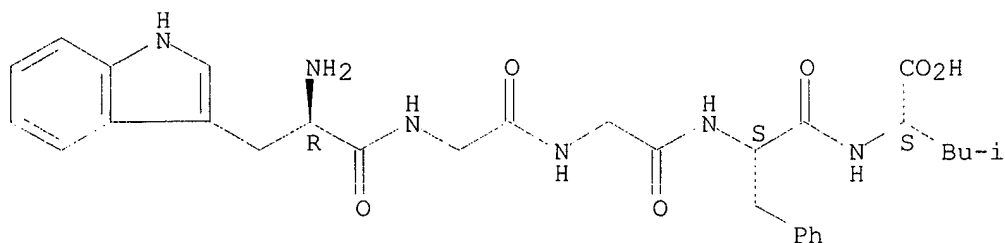
Absolute stereochemistry.



RN 135997-66-9 HCAPLUS

CN L-Leucine, N-[N-[N-(N-D-tryptophylglycyl)glycyl]-L-phenylalanyl]- (9CI)
(CA INDEX NAME)

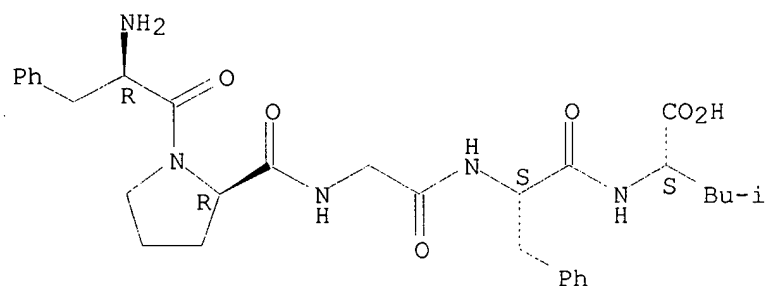
Absolute stereochemistry.



RN 135997-67-0 HCAPLUS

CN L-Leucine, N-[N-[N-(1-D-phenylalanyl-D-prolyl)glycyl]-L-phenylalanyl]- (9CI) (CA INDEX NAME)

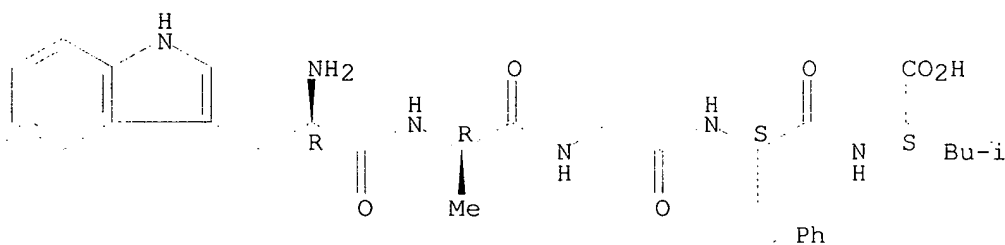
Absolute stereochemistry.



RN 135997-68-1 HCAPLUS

CN L-Leucine, N-[N-[N-(N-D-tryptophyl-D-alanyl)glycyl]-L-phenylalanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d ibib abs hitstr 6

L25 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1991:675262 HCAPLUS

DOCUMENT NUMBER: 115:275262

TITLE: Spatially addressable immobilization of antiligands on surfaces

INVENTOR(S): Barrett, Ronald W.; Pirrung, Michael;
Stryer, Lubert; Holmes, Christopher P.; Sundberg, Steven A.

PATENT ASSIGNEE(S): Affymax Technologies N. V., Neth.

SOURCE: PCT Int. Appl., 73 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 16

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9107087	A1	19910530	WO 1990-US6607	19901113
W: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, RO				
RW: AT, BE, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG				
AU 9168867	A1	19910613	AU 1991-68867	19901113
EP 502060	A1	19920909	EP 1990-917525	19901113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 05501611	T2	19930325	JP 1991-500563	19901113
US 5252743	A	19931012	US 1990-612671	19901113
US 5451683	A	19950919	US 1993-53124	19930423
US 5482867	A	19960109	US 1993-54121	19930423
PRIORITY APPLN. INFO.:			US 1989-435316	A 19891113
			US 1990-612671	A3 19901113
			WO 1990-US6607	A 19901113

OTHER SOURCE(S): MARPAT 115:275262

AB Methods and compns. are described for immobilizing anti-ligands, e.g. antibodies or antigens, hormones or hormone receptors, oligonucleotides, and polysaccharides on surfaces of solid substrates for various uses. The methods provide surfaces covered with caged (i.e. protected) binding members which contain protecting groups capable of being removed upon application of a suitable energy source. Spatially addressed irradiation of predefined regions on the surface permits immobilization of anti-ligands at the activated regions on the surface. Cycles of irradiation on different regions of the surface and immobilization of different anti-ligands allows formation of an immobilized matrix of anti-ligands at defined sites on the surface. The immobilized matrix of anti-ligands permits simultaneous screenings of a liq. sample for ligands having high affinities for certain anti-ligands of the matrix. A preferred embodiment of the invention involves attaching photoactivatable biotin derivs. to a surface. Photolytic activation of the biotin derivs. forms biotin analogs having strong binding affinity for avidin. Biotinylated anti-ligands can be immobilized on activated regions of the surface previously treated with avidin. Thus, a nitroveratryloxycarbonyl (NVOC) deriv. of biotin was prepd., derivatized to an active ester, and the active ester reacted with a glass microscope slide which had been derivatized with N-Boc-aminopropyltriethoxysilane (Boc = tert-butoxycarbonyl) and then with an activated ester of N-Boc-6-aminocaproic acid. The microscope slide having the NVOC-biotin covalently attached by a caproic-Pr spacer

was illuminated with broad band UV/blue light through a checkerboard pattern mask. Following photolysis, the surface was rinsed and preincubated in a soln. contg. phosphate-buffered saline, bovine serum albumin, and Tween 20. The surface was then sequentially treated with streptavidin and a fluorescein-biotin deriv. The resulting slide was washed, dried, and examd. with a scanning fluorescence microscope (image included). The light squares indicated regions of high fluorescence intensity resulting from localization of the fluorescein label attached to biotin, thereby demonstrating the binding of a ligand (fluorescein-biotin) to streptavidin immobilized in a spatially addressable manner. The spatially addressable immobilization of 2 different antibodies on the same surface is also described.

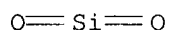
IT 7631-86-9, Silica, biological studies

RL: BIOL (Biological study)

(antiligand immobilization on, spatially addressable, immobilized caged binding member irradiation)

RN 7631-86-9 HCAPLUS

CN Silica (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



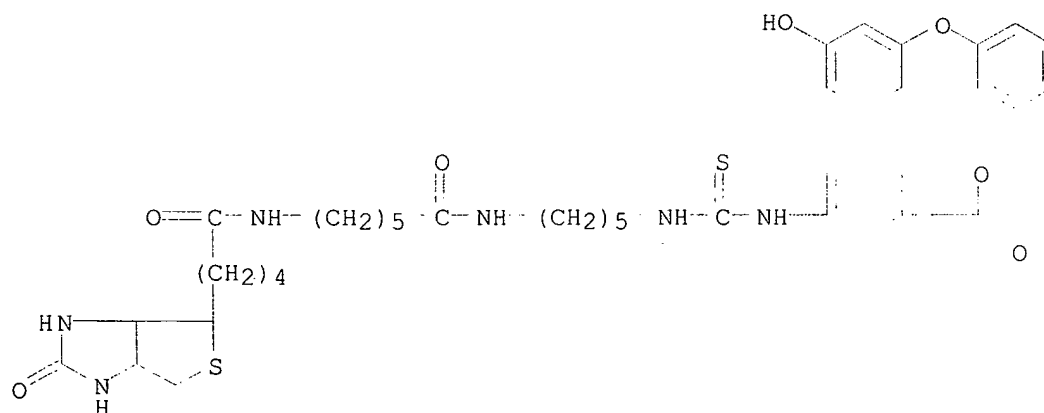
IT 137376-36-4

RL: ANST (Analytical study)

(binding of, to spatially addressable immobilized streptavidin, immobilized photoactivatable biotin deriv. in relation to)

RN 137376-36-4 HCAPLUS

1H-Thieno[3,4-d]imidazole-4-pentanamide, hexahydro-N-[6-[[5-[[[(3'-hydroxy-3-oxospiro[isobenzofuran-1(3H),9']-[9H]xanthen]-5-yl)amino]thioxomethyl]amino]pentyl]amino]-6-oxohexyl]-2-oxo- (9CI) (CA INDEX NAME)



IT 137376-35-3

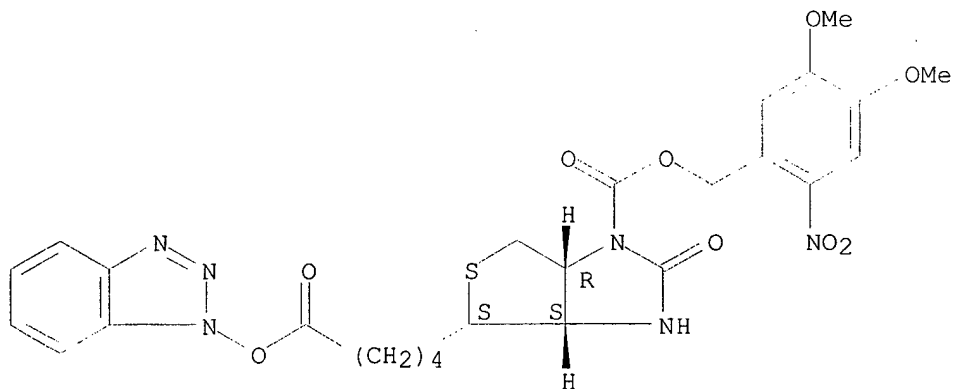
RL: ANST (Analytical study)

(glass derivatized with, for spatially addressable streptavidin immobilization)

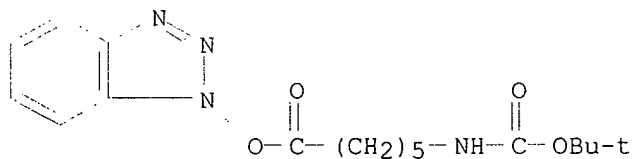
RN 137376-35-3 HCAPLUS

1H-Thieno[3,4-d]imidazole-1-carboxylic acid, 4-[5-(1H-benzotriazol-1-
yloxy)-5-oxopentyl]hexahydro-2-oxo-, (4,5-dimethoxy-2-nitrophenyl)methyl
ester, [3aS-(3a.alpha.,4.beta.,6a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

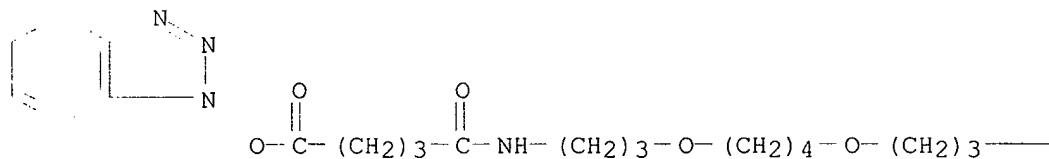


IT 77838-08-5 137376-37-5 137376-38-6
 RL: ANST (Analytical study)
 (glass derivatized with, in photoactivatable biotin deriv.
 immobilization for spatially addressable streptavidin immobilization)
 RN 77838-08-5 HCAPLUS
 CN Carbamic acid, [6-(1H-benzotriazol-1-yloxy)-6-oxohexyl]-,
 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 137376-37-5 HCAPLUS
 CN Pentanamide, N-[3-[4-(3-aminopropoxy)butoxy]propyl]-5-(1H-benzotriazol-1-yloxy)-5-oxo- (9CI) (CA INDEX NAME)

PAGE 1-A

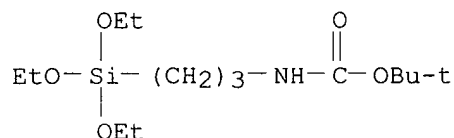


PAGE 1-B

NH₂

RN 137376-38-6 HCAPLUS

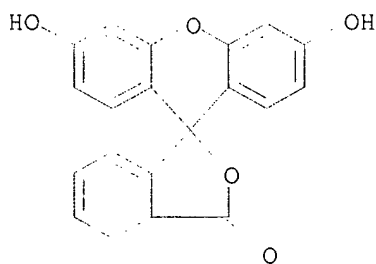
CN Carbamic acid, [3-(triethoxysilyl)propyl]-, 1,1-dimethylethyl ester (9CI)
(CA INDEX NAME)



IT 9013-20-1, Streptavidin
RL: ANST (Analytical study)
(immobilization of, spatially addressable, immobilized caged binding
member irradiation in relation to)
RN 9013-20-1 HCAPLUS
CN Streptavidin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 2321-07-5D, Fluorescein, streptavidin conjugates
9013-20-1D, Streptavidin, fluorescein conjugates
RL: PROC (Process)
(immobilization of, spatially addressable, on glass with
immobilized photoactivatable biotin deriv.)
RN 2321-07-5 HCAPLUS
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-dihydroxy- (9CI)
(CA INDEX NAME)

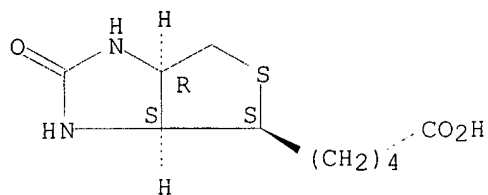


RN 9013-20-1 HCAPLUS
CN Streptavidin (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 58-85-5, Biotin
RL: ANST (Analytical study)
(irradiation of protected deriv. of, in spatially addressable antiligand
immobilization)
RN 58-85-5 HCAPLUS
CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-,
(3aS,4S,6aR)- (9CI) (CA INDEX NAME)

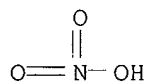
Absolute stereochemistry. Rotation (+).



IT 9004-70-0D, Nitrocellulose, analogs
 RL: ANST (Analytical study)
 (membranes of, photoactivatable biotin deriv. immobilized on, spatially
 addressable antiligand immobilization in relation to)
 RN 9004-70-0 HCAPLUS
 CN Cellulose, nitrate (9CI) (CA INDEX NAME)
 CM 1
 CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

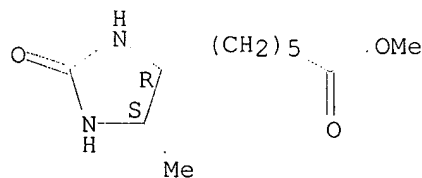
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2
 CRN 7697-37-2
 CMF H N O3

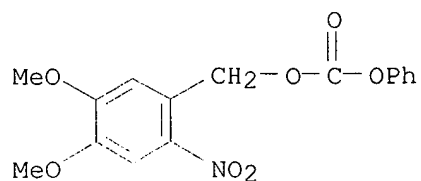


IT 6020-51-5P 137376-29-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction of, in biotin photoactivatable deriv. prepn. for
 spatially addressable antiligand immobilization)
 RN 6020-51-5 HCAPLUS
 CN 4-Imidazolidinehexanoic acid, 5-methyl-2-oxo-, methyl ester, (4R,5S)-
 (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 137376-29-5 HCAPLUS
 CN Carbonic acid, (4,5-dimethoxy-2-nitrophenyl)methyl phenyl ester (9CI) (CA
 INDEX NAME)



IT 137376-28-4P 137376-30-8P 137376-31-9P

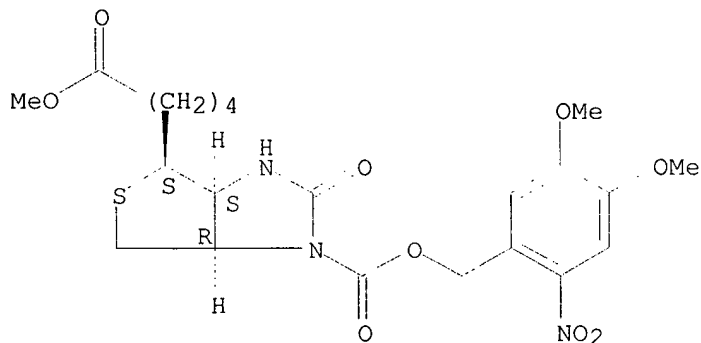
137376-33-1P 137376-34-2P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, for antiligand spatially addressable immobilization, caged
biotin deriv. photolysis in relation to)

RN 137376-28-4 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, 1-[[[(4,5-dimethoxy-2-nitrophenyl)methoxy]carbonyl]hexahydro-2-oxo-, methyl ester,
[3aS-(3a.alpha.,4.beta.,6a.alpha.)]- (9CI) (CA INDEX NAME)

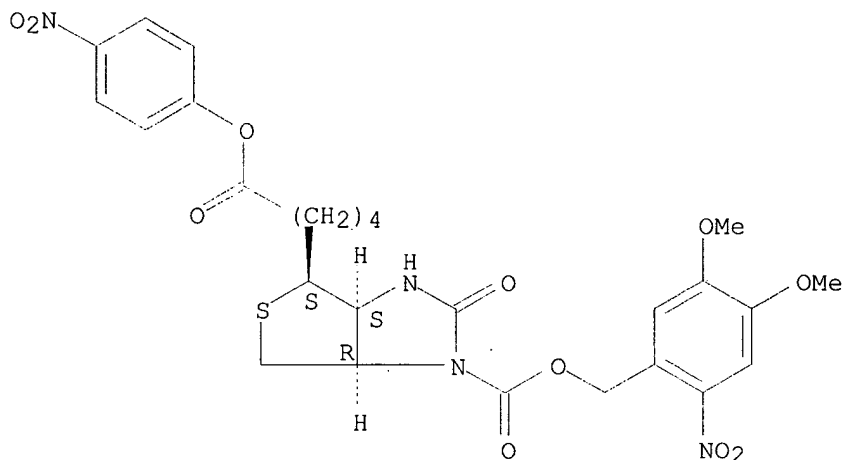
Absolute stereochemistry.



RN 137376-30-8 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, 1-[[[(4,5-dimethoxy-2-nitrophenyl)methoxy]carbonyl]hexahydro-2-oxo-, 4-nitrophenyl ester,
[3aS-(3a.alpha.,4.beta.,6a.alpha.)]- (9CI) (CA INDEX NAME)

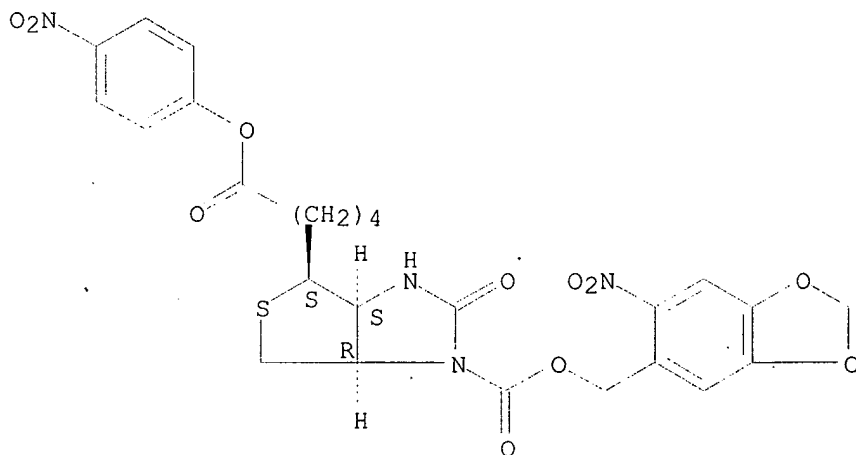
Absolute stereochemistry.



RN 137376-31-9 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-1-[[[6-nitro-1,3-benzodioxol-5-yl)methoxy]carbonyl]-2-oxo-, 4-nitrophenyl ester, [3aS-(3a.alpha.,4.beta.,6a.alpha.)]- (9CI) (CA INDEX NAME)

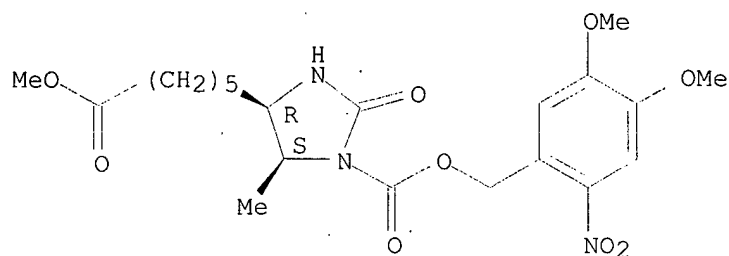
Absolute stereochemistry.



RN 137376-33-1 HCAPLUS

CN 4-Imidazolidinehexanoic acid, 1-[[[4,5-dimethoxy-2-nitrophenyl)methoxy]carbonyl]-5-methyl-2-oxo-, methyl ester, (4R-cis)- (9CI) (CA INDEX NAME)

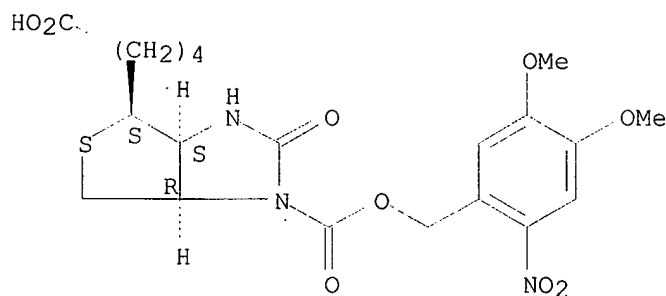
Absolute stereochemistry.



RN 137376-34-2 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, 1-[[4,5-dimethoxy-2-nitrophenyl)methoxy]carbonyl]hexahydro-2-oxo-, [3aS-(3a.alpha.,4.beta.,6a.alpha.)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



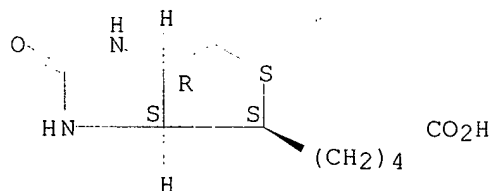
IT 58-85-5, D-Biotin 33755-53-2, Biotin p-nitrophenyl ester
42855-00-5 137376-32-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in biotin photoactivatable deriv. prepn. for spatially addressable antiligand immobilization)

RN 58-85-5 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

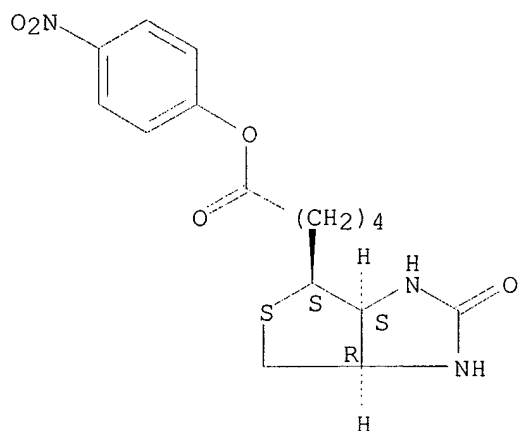
Absolute stereochemistry. Rotation (+).



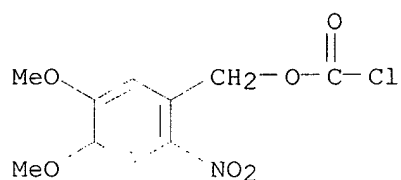
RN 33755-53-2 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-, 4-nitrophenyl ester, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

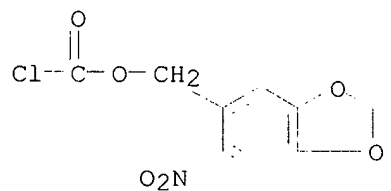
Absolute stereochemistry.



RN 42855-00-5 HCAPLUS
 CN Carbonochloridic acid, (4,5-dimethoxy-2-nitrophenyl)methyl ester (9CI)
 (CA INDEX NAME)



RN 137376-32-0 HCAPLUS
 CN Carbonochloridic acid, (6-nitro-1,3-benzodioxol-5-yl)methyl ester (9CI)
 (CA INDEX NAME)



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